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ABSTRACT

Contents include papers on access to higher education (Barbara B. Burn, Klaus von Dohnanyi, Lois Rice, William W. Turnbull, Burton R. Clark, Ernest L. Boyer, and John W. Nason); systems of higher education (Ernest L. Boyer, Alain Bienamye, Lyman A. Glenny, Torsten Husen, Hans Leussink, Edward F. Sheffield, Francis X. Sutton, and John W. Nason); youth, education, and employment (Clark Kerr, Henri Janne, Jan Szczepanski, Farhang Mehr, Stephen K. Bailey, and John W. Nason); and a report of a conference on women in the power structures (Paola Coppola Pignatelli). (MSE)

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International Perspectives
on Problems of Higher Education

ACCESS,
SYSTEMS,
YOUTH AND EMPLOYMENT

Papers presented at the 1976 Aspen Seminar held under the joint sponsorship of the Aspen Institute for Humanistic Studies and the International Council for Educational Development.

James A. Perkins, Foreword

Barbara B. Burn, Editor

ICED International Council for Educational Development

Conference Papers Number Four

International Council for Educational Development
680 Fifth Avenue
New York, N.Y. 10019

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Foreword

This volume contains many of the presentations that were made at the fourth ICED-Aspen Institute Seminar held at Aspen, Colorado this past July of 1976. Both individually and collectively they represent the burden of what was said and discussed.

The seminar was divided into three parts—each part representing one of ICED's major preoccupations. The first week was on the topic of access to higher education; the second on the design and management of educational systems; and the third week on the interrelated problems of youth, education, and employment. A core group of about a dozen, who stayed throughout the three weeks, was joined each week by two or three experts who participated in our discussions.

As in the previous three seminars, it was and is impossible to capture the full range of the topics discussed and the highly professional quality of the discussions. However, as a whole, they throw light on the international comparative research activities of the ICED with respect to education in general and higher education in particular. Several large lessons stand out.

The first is that problems of access to higher education cannot be either analyzed or successfully handled without noting that access is part of a large scheme of interrelated matters that involve not only higher education but social priorities as well. As Alden Thresher has said, problems of admission are essentially social problems and only in a narrow sense technical problems. This made the discussions both lively and difficult to contain.

The second subject—namely the design and management of systems of higher education—brought with it the problem of university connections with government and society on the one hand and the very nature of internal administration of the university on the other. Systems range all the way from loose federation to tight management under governing boards. The various countries represented show remarkable ingenuity in dealing with the same problem, namely how to provide for university autonomy and public accountability at the same time. The various balances that were struck in the countries represented threw light not only on the similarities of our problems but the fascinating differences in our answers.

On the subject of youth, education, and employment it was clear that the problem of youth is a large social problem that cuts horizontally across many other social problems, among them full employment, family stability, social cohesion, and the general level of social morality. But at the same time vertical considerations that find youth as a tail-end problem in a period of unemployment and of uncertainty of educational purpose provided the matrix for our discussion.

So these papers will be representative rather than comprehensive of our seminar discussions which most of us felt were rewarding. It is hoped that the reader will find that they stimulate his interest in new approaches to the resolution of these three central problems.

Once again we are deeply grateful to the Ford Foundation and the Carnegie Corporation of New York for the financial assistance that made this seminar possible.

James A. Perkins, Chairman
International Council for
Educational Development

Aspen Seminar Participants

July 1976

In attendance for the entire seminar

James A. Perkins (Chairman), *Chairman and Chief Executive Officer, International Council for Educational Development*

Barbara B. Burn (Rapporteur), *Director of International Programs, University of Massachusetts*

Alain Bienaymé, *Professor of Economics, University of Paris-Dauphine*

Ernest L. Boyer, *Chancellor, the State University of New York*

Burton R. Clark, *Professor of Sociology, Yale University*

Klaus von Dohnanyi, *Member of the Bundestag; former Federal Minister of Science and Education, West Germany*

Torsten Husén, *Professor of Education and Director of the Institute for the Study of International Problems, University of Stockholm*

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Pablo Latapi, *Director, Prospectiva Universitaria, Mexico*

Farhang Mehr, *Chancellor, Pahlavi University, Shiraz, Iran*

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Paola Coppola Pignatelli, *Professor of Architectural Design, University of Rome; Director of Research Group on Higher Education*

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I. ACCESS TO HIGHER EDUCATION

GERMAN-U.S. STUDY GROUP ON ACCESS TO HIGHER EDUCATION: MAJOR ISSUES

Barbara B. Burn

The establishment in January 1975 of the twelve-member German-U.S. Study Group on Access to Higher Education under the International Council for Educational Development grew out of discussions held at an exploratory symposium at the Villa Hügel in September 1974. Funded by the Volkswagen Foundation and initially set up for the two-year period 1975-76, the work of the Study Group has now been extended to 1977.

The Study Group's mandate is to examine and recommend solutions to problems of access in the Federal Republic of Germany and in the United States. Although the higher education systems in the two countries differ importantly in their historical traditions and structures, they share certain common features and concerns. Both countries have federal systems of government, are highly industrialized, and give priority to equality of opportunity in access to higher education. In both countries there is dissatisfaction with current access systems. Like other industrialized nations, Germany and the U.S. have experienced a significant decline in the birth rate, which is beginning now to have an impact on higher education enrollments in the U.S. and will in Germany in the mid-1980s. At the same time competing social needs limit the resources available for higher education, as does an increasing apathy or even disenchantment with higher education, compounded by graduate under- and unemployment in the U.S. and to a lesser degree in Germany. In the two countries access to higher education is increasingly a matter of litigation in the courts, and this may intensify.

By mid-1976 the German-U.S. Study Group had sponsored studies on college admission testing in the U.S. and the management of a national testing program; on legal and constitutional factors affecting higher education access in Germany and the U.S., and on access to medical education in these and selected other countries.

Studies had been commissioned on innovations in access in other countries pertinent to problems in Germany and the U.S.: part-time enrollments in Ontario; the 25/5 (now 25/4) access policy in Sweden; the "under 21" experiment of Britain's Open University; and the experience of the University of Vincennes, Paris, in admitting older and employed students who lack the baccalaureate. Inquiries into the actual working of the access process are being carried out in one state in each country: Massachusetts and North Rhine Westfalia. The Massachusetts study is part of a larger inquiry by a two-man German commission into access problems in the U.S. from the German viewpoint. Planned for 1977 are a symposium on medical admissions in Germany, the United States and selected other countries, and a conference on legal and constitutional aspects of access in both countries, and a comparative evaluation of the role of testing in the admissions process in both countries.

These projects and studies are expected to identify major issues in access and some solutions to them. Following is a discussion of some of those issues.

Admissions Criteria and Procedures

Because of the urgency of the access situation in Germany, an initial focus of the German-U.S. Study Group was criteria and procedures for admission. The concern of the German members was to identify criteria and procedures which select students most likely to succeed in higher education and would be uniform, equitable, and practicable. Although ideally selection criteria should relate to the likelihood of eventual success of students in their professional careers, the Study Group agreed that identifying such criteria is probably too complex and controversial for it to attempt.

From its first meeting, it became apparent to the Study Group that criteria and procedures cannot be examined in isolation because they involve a variety of other questions. These include: the aims of higher education; the part played by secondary schools in higher education selection and impact on them of different selection criteria and procedures; the exit policy of the higher education system in terms of the employment expectations and prospects of graduates and trained manpower needs of the society; the extent of differentiation and coordination among institutions in the higher education system and hence of a corresponding differentiation in access goals, criteria, and procedures; the financing of students and of the institutions; and the social traditions and policies which constitute the context for policy on higher education, including access. This section initially deals with access criteria and procedures and then with some of the issues inseparable from them.

Admissions criteria and procedures commonly refer to systems of sorting or selecting which restrict higher education access to a part of the relevant age cohort. Selection is not at the point of entry to higher education only, but may operate at a series of levels and through different devices. It may take place at both the entry and exit points in secondary school in educational systems which have a distinct college preparatory stream. At entry to higher education selection may function through national examinations or tests, examinations given by the individual institutions, or various other modes. Selection may also take place after entry to higher education through competitive examinations, usually given at the end of the first year, which are designed to eliminate large numbers of entrants, or through a Darwinian self-selection which can be equally ruthless.

The last two decades have seen a sharp increase in secondary school enrollments in the industrialized nations, deliberately encouraged in the 1960s in Germany. With the expansion of students in university preparatory secondary school and an increased diversification of the young people in them in terms of aspirations and ability, the traditional system of assessing performance has come into question. Geared to certifying for transfer to higher education, success has been based on examinations on acquired knowledge rather than academic potential and ability.

Now that, as in Germany, automatic admission to university by successful graduates of academic secondary school is no longer possible, selecting from among them (and the pool of other people who are in principle qualified to enter higher education although lacking the *Abitur*) has no easy answer. Assessments of school achievement may vary with individual teachers, schools, and regions; school achievement itself varies in the more diversified secondary systems offering access to higher education. If equal access is a genuine goal of higher education, the greater diversification of secondary school students in terms of their socioeconomic background and ability also calls for reconsideration of an assessment system favoring young people from more advantaged backgrounds (a problem in both the U.S. and Germany). Furthermore, if a number of secondary school leavers cannot gain entrance to higher education, should not curricula and assessment criteria reflect the fact that these young people will go directly into employment, and hence prepare them and assess performance with this in mind, instead of focusing more on the theoretical and academic learning expected for university admissions? This is not yet a pressing issue in Germany, but may become one.

The criteria and procedures typically used in selective admissions relate chiefly to past academic performance as demonstrated in secondary school grades and test results. However, the argument that they should be relied upon because of their predictive value breaks down in the case of a highly competitive field such as medicine in Germany and the U.S. where admission decisions may involve only fractional differences in scores. This field also demonstrates two other weaknesses in its reliance upon past academic performance. The very competitiveness of entry attracts candidates whose main motivation may be more to see their superior academic record affirmed than any serious commitment to the medical profession. Conversely, more important to practicing medicine than academic ability may be a range of qualities which tend not to be taken into account in grades and test scores. It is true, however, that a rigorous examination system does not test academic achievement and ability only. For example, to pass the civil service examinations required in China until 1904, for entry to the governing elite, a candidate is said to have needed "the spiritual strength of a dragon-horse, the physique of a donkey, the insensitivity of a wood louse and the endurance of a camel."

Academic achievement examinations used for higher education selection undoubtedly test more than cognitive factors only. However, an increasing recognition of the importance of offering access to persons who may not excel in such examinations but would profit from higher education (the "value added" notion)—and do well as practitioners in the professions—has stimulated new approaches to higher education selection. The fact that successful performance in higher education correlates only slightly more than 50% with tests of academic achievement provides an added impetus for including various noncognitive criteria and procedures which measure other factors, especially attitudes and motivation.

A variety of experiments are underway. In line with taking account of "stopping-out" or deferred entry trends, the duration and sometimes the nature of work experience between secondary school and university may at the least be a supplementary criterion (as under the new *Hochschulrahmengesetz* in Germany), or at most be evaluated for and recognized as meeting some elements in a student's total higher education program. Age is also taken into account, as at the University of Vincennes, Paris; under the 25/5 (more recently 25/4) admission policy in Sweden; and in the University Without Walls and Empire State College in the United States. Higher education applicants in Eastern European countries receive bonus points in the selection process if they come from worker or peasant backgrounds (but their children, by definition, then part of the intelligentsia, are in principle not so favored). Because of the unpredictability of successful academic performance, a selection system relying on chance to select among those with a minimum level of achievement, as with the lottery in the Netherlands, may be more equitable and just as valid as selection based on achievement tests alone.

Criteria which attempt to assess motivation and other noncognitive factors do not yet lend themselves to computerization. Although the clearinghouse operation of the Universities Central Council for Admissions (UCCA) in Britain is computerized, each student application contains personal letters of reference from secondary school headmasters and teachers. Fully uniform selection criteria and procedures, whether computerized or not, leave no scope for individualized judgments on applicants. Willi Becker, a member of the German-U.S. Study Group, referred to this as "a natural, irreconcilable opposition between justice and practicality." In a paper for the Study Group, "Problems of Higher Education in the Federal Republic of Germany," he wrote:

> He who demands that the procedure be made more just and more practical at the same time is wishing for something which is simply impossible. The more fair a procedure becomes, that is, the more it considers individual cases or categories of individual cases, the more casuistically it must operate, and the more complicated it gets. The simpler it becomes, and the more practical, the more

> the standard of the greatest possible fairness recedes into the background. The two interests cannot be combined.

A selection system which assumes uniformity among admissions criteria, and only admits students for whom successful academic performance is predicted, in principle can allocate places in higher education through a national agency. However, this assumes a uniformity of standards of quality, if not of content, throughout the higher education system. With mass higher education, as it now is in Germany, and has been for longer in the U.S., this assumption has diminishing validity.

The universities cannot claim an equal level of excellence overall or in specific fields which a computerized central allocation system assumes. The focus or strength of subfields within a given discipline varies among the universities, another factor which centralized allocation of student places ignores. How an admissions process which does not involve the universities themselves in decision making can effectively recruit students is a critical question in German university admission. Finally, whether individual institutions select their students or they are allocated by a national agency, students applying for higher education must be able to make informed choices in deciding on the institutions to which they wish to apply, thus requiring an effective secondary school counseling system. This is especially the case in Germany because entering students are expected to choose their field of specialization before entering rather than after, as in the U.S., on the assumption, now eroding, that they acquired a sufficient general education in secondary school.

The explicit admission of differences in standards of excellence among higher education institutions in a system coupled with decentralized rather than centralized decision making on admissions is, as in the U.S., likely to reenforce the hierarchical nature of the system. As the most able and ambitious students seek and gain access to the superior institutions, and as these institutions are better able to attract the more outstanding faculty and more external support for their research and teaching, the gap between the inferior and superior institutions is perpetuated. This situation may assure the less able students of finding places, typically in the less competitive and less endowed institutions. However, the eventual consequence may be, as Alexander W. Astin has pointed out, that equal access may become a myth in terms of genuine educational opportunity and the relative value of the credentials earned.

Other Issues Related to Access

The following section on other issues related to access does not attempt to deal with them comprehensively, but sets forth some of the basic questions which link them to access policies.

1. The Aims of Higher Education

Policy on access to higher education depends on the aims of the higher education system or institution. Rarely, however, are these made sufficiently concrete to provide precise guidelines for admissions decisions. Moreover, higher education institutions and systems typically have a multiplicity of aims which may not only be mutually incompatible but even in conflict. Their harmonization assumes a unity or coherence of purpose which is particularly difficult to achieve in a social institution characterized by a diffusion of decision-making responsibility and a structure which traditionally encourages initiative and diversity within its walls. While higher education systems in the industrialized countries have been moving toward increasing differentiation between categories of institutions, and a corresponding focus within these categories in their aims and access policies, many institutions continue to have a diversity of aims which have different implications for access. Some of the more commonly accepted aims or goals of higher education and their implications for access are discussed below.

—The Training of Highly Qualified Manpower

This aim implies but does not necessarily require meritocratic selection. However, if the goal is to produce the persons with specialized training needed by society, priority is normally given to admitting students likely to complete their higher education successfully. Traditional predictors of ability, i.e. subject and achievement examinations, in principle admit the most able, and highly exacting examinations may also winnow out the less able of those admitted. This meritocratic access policy may also be associated with manpower planning (despite its inadequacies). A variant of meritocratic access which also is egalitarian in aim is a "talent search" policy which seeks out the most talented at an early age, and grooms and encourages them to enter higher education.

—Responding to Social Demand

Higher education institutions and systems which aim at responding to social demand or the demand of young people to enter higher education are likely to follow more egalitarian access policies. These can take different forms. Open access to all qualified applicants can be basically elitist if few young people can gain the qualification for admission, as in systems with highly selective secondary education. If, as with the public community colleges in the U.S., only a high school diploma is required, and the great majority of the age group completes secondary school, open access is basically nonselective. This access policy reflects a commitment to offering the opportunity for higher education for all persons capable of profiting from it without regard to high school achievement—and in some cases requiring remedial work to handle college study.

—The Reduction of Social Inequities

This objective for higher education goes beyond open access in implying not just equal opportunity but special measures to encourage and facilitate the admission to higher education of selected groups in society. Examples include affirmative action policies in the U.S. to encourage more female and minority enrollments, special bonus points in admission selection for children of worker and peasant families in the socialist countries, and even quotas to restrict or handicap social groups otherwise likely to enroll in large numbers, e.g. the Chinese in Malaysia. As with open access the underlying aim is to extend educational and career choices to more people, and to give them the opportunity to change their status and self-image.

—The Advancement of Knowledge

This goal relates to the research function of higher education. As with the training of highly qualified manpower, it calls for a selective and meritocratic access policy, but presumably more discipline- or faculty-oriented. In most higher education systems admission criteria to attain this objective primarily involve successful completion of undergraduate studies or the appropriate cycle at university and a superior record in these studies.

—Strengthening Social, Civic, and Cultural Values

Some societies, especially the Anglo-American, regard higher education as a means to strengthen humanistic values, to encourage a wider participation in cultural and civic life, and to enable people to function more effectively in and influence their environment. Research in the United States suggests that persons with a college degree have certain characteristics which distinguish them from those not going to college. These include: more tolerant attitudes toward others, greater job satisfaction, more participation in and knowledge of community and national affairs, and more deliberateness in their consumer spending. Whether this consequence of higher education and the social goals involved can enlighten access policy is doubtful as it may have more to do with the kinds of people aspiring to higher education and the total college experience than with any academic criteria.

2. The Secondary-Higher Education Interface

The content of higher education, especially in initial courses, and its expectations of entering students can shape secondary education curricula. So too do secondary school programs have an important impact on higher education and its admissions policies and criteria. The expectation that secondary education should produce candidates for higher education with a standard level of achievement significantly molds secondary school college-preparatory curricula. In a highly competitive admissions situation, for example as in Germany and Japan, the resultant pressure on teachers and students can become a serious social problem, most starkly manifested in high suicide rates among young people aspiring to higher education. That secondary and higher education systems typically fall under different patterns of authority and control makes it particularly difficult to mesh their aims, content, and structures.

Traditional college-preparatory curricula in secondary education in most countries have aimed at mastery of certain basic subjects so that higher education programs could assume and build on a specific level of achievement. An aggregative approach to learning and agreement on the subjects required for higher education admissions were fundamental to the traditional system of transfer from secondary to higher education. High school curricula for college-bound students was closely interlocked in content, aims and teaching methods with higher education, and school and university teachers were in reasonable agreement on aims and outcomes. In the European countries they in fact constituted a single profession with a common background and values, and do still to some extent today.

A variety of developments have altered this situation. Foremost among these are the much higher participation rates in those secondary education programs which lead to higher education. Also important are the comprehensiveness, or at least greater diversity, of these programs, and a widening range in achievement levels among secondary school graduates.[1] The transition from secondary to higher education has been only partly adapted to these new developments. Reforms in secondary school curricula may not be reflected in higher education aims and programs. At both secondary and higher education levels the widely heterogeneous backgrounds of students may not be adequately taken into account in curricula, teaching methods and counseling services, or by teachers in their perceptions of their professional role and goals. These changes have, especially in Europe, been accompanied by a diminishing sense of unity and lessened understanding among teachers in secondary and higher education of each other's circumstances and problems. The linkage between secondary and higher education has consequently become more diffuse and varied as changes in one part of the educational system not worked through in another erode the coherence of the whole.

Several contemporary developments in higher education underscore the decreasing emphasis on the requirement of a standard level of achievement for higher education admissions. Among these are the Open University in Britain which admits "unqualified students" and on a first come, first served basis; Sweden's 25/4 access policy; and the trend in the U.S. for people to enter higher education at a much older age than the traditional 18 year old. In the OU and Swedish cases graduation from a college preparatory secondary school is not required. For the older students in the U.S. the extended period since high school graduation somewhat

[1] In Germany, as stated by Willi Becker, "With the expansion of the right of admission to include roughly 40 possibilities and approximately 200 forms of certification (compared with the situation until 1960 when the *Abitur* could be obtained only at the three types of *Gymnasium*), it is supposedly impossible to ensure that beginning students meet basic academic standards for admission."

vitiates notions of aggregative sequential learning in the secondary-higher education transition.

Whether these kinds of developments undermine standards of quality in higher education is an important issue, although it seems clear that the Open University's determination not to let this happen will continue to assure its high standards. It also is clear from these and other developments that the linkage between secondary and higher education is in transition and that the part played by secondary education in the process will continue to diminish. To the extent that this makes more flexibility and diversity possible in secondary school, it may be an important shift. Some observers claim it has already been carried too far in the U.S.; in Germany it remains relatively limited.

3. Access and Institutional Differentiation

In expanding their higher or postsecondary education systems in the last 25 years, most of the Western European countries together with Canada and the U.S. have not only enlarged the traditional university sector, but have also launched or expanded other types of postsecondary institutions and programs. The objectives of this expansion have been to extend acccess to more students, to provide a greater variety of educational offerings for a more diversified student body and to meet the rapidly changing manpower needs of contemporary industrial society. In some countries expansion to encompass the multiplying aims and programs of postsecondary education has been through a system of special-purpose institutions; in others through comprehensive multipurpose institutions. Diversification of access policies and criteria has been an essential part of the institutional diversification.

Various issues are involved in the diversification of access policy. If the variety of institutions and programs are intended to meet the needs of a diversified student body—diversified in interests and ability—how can students be given equal opportunity for access and at the same time be distributed among institutions in a way to match their interests and abilities with appropriate institutions? If different institutions and programs have differing access policies and criteria, what strategies should be followed to prevent students who enter a particular program or institution from being locked into it? How best can lateral and vertical mobility of students among institutions be facilitated in order to permit them to pursue their educational interests to the extent their abilities permit?

What mechanisms and structures can ensure coordination and complementarity between different kinds of institutions and programs and prevent the tendency of institutions to seek a higher status in the system "academic drift"? What access policies are implied by this? If graduates of certain categories of institutions by tradition or law expect or are entitled to higher professional status and salaries than those from the "less noble" institutions, what access policies, if any, can equitably limit the demand for admission to the former and divert it to the latter?

4. Access and Employment

Access criteria which can predict success in working life have yet to be identified, and the forecasting of trained manpower needs still has no scientific certainty. Access policy should nevertheless attempt to take the career interests and prospects of graduates into account in terms both of the total output of graduates and in certifying and supplying trained persons for specific professional fields. In the U.S. it is mainly market forces which determine decisions on the numbers of graduates turned out by higher education. It is up to the individual to decide whether to apply for admission and in what field, and to the institutions whether to admit applicants and expand or not expand their facilities accordingly. The availability of funds to the individual and to the institutions is crucial to these decisions.

In Germany the expansion of higher education facilities is centrally determined by the Bund-Länder Commission for Educational Planning. The degree of utilization of higher education capacities is the subject of complex formulas which calculate total places for students in the system. Market forces are fundamental to these calculations as the expansion of facilities is planned partly on the basis of projections of the young people expected to gain qualifications for and likely to seek higher education.

In both countries the variable which most defies precise prediction is the proportion of young people likely to seek higher education admission because this in turn depends in large part on the employment prospects of graduates. Reliance on market forces to achieve some equilibrium between the output of graduates and appropriate jobs for them requires a system which assures the availability of information to students so that they can make informed career decisions. Predictions in this area are particularly difficult because with changes in society and in the economy new job demands can open up which cannot be forecast, much less conceived of today. This predicament poses some fundamental questions to a higher education system geared mainly toward professionalization and specialization in its output.

In Germany where university attendance typically involves more specialization than in the U.S., the specter of an academic proletariat from the overproduction of graduates is a deepening concern. As some 70% of graduates have traditionally entered public service occupations, including teaching, the elevated job expectations they have gives little flexibility to the system. Willi Becker has commented on this phenomenon as follows:

> If conceptions of social prestige (the "academician"), income expectations, and status career conceptions persist, then in the next ten years we can expect a significant oversupply of academically trained people. However, if one opposes to this an altered conception of social prestige, lowered income expectations, and a broader and more practical post-secondary training (curriculum reform, career fields rather than fixed career slots), then it will be a long time before we can really speak of an "over-production" of university graduates.

Apart from their impact on total numbers of graduates of higher education and their employment prospects, access policies can affect the kinds of persons recruited to the professions. Selective admissions in a competitive admission field, such as medicine is in Germany and the U.S., may by the nature of the admission criteria applied produce an unequal distribution of talent among the professions. Thus, young people with the highest ability and achievement records tend to be disproportionately recruited to high prestige (and salary) occupations such as medicine. Given that such cognitive criteria only account for half or less of the differences in educational attainment and do not take into account various noncognitive qualities of importance to the professions, a selective admissions system may well not recruit to the professions people with the kinds of qualities needed. This problem, a special concern of the German-U.S. Study Group in connection with medical admissions, points up some of the complexity of the interrelationship between access and employment.

Conclusion

The subject of access to higher education is multidimensional in its scope and implications. Policies on access, educational objectives, and admissions criteria should mesh with and reenforce each other. Open access policies can be deceptive if the opportunity for higher education in a stratified system is itself stratified in ways that inhibit genuinely equal opportunity. Harmonizing egalitarian and meritocratic objectives and procedures in a single institution or system can produce distortions and stresses in both access and exit policies.

With the advent of mass higher education and the shifting of the selection function from secondary to higher education, access policy becomes an increasingly crucial element in the system. Also, its role becomes more important in a mass higher education situation because of the expanding part played by higher education in credentialing people for jobs. Pressures for entry to higher education may be translated into pressures to graduate all students. This, however, might be salutary if it shifts the function of evaluating the employment qualifications of graduates from the higher education system to the employers.

Finally, while the focus of this paper has been on Germany and the U.S., access is a matter of increasing concern in a number of countries. Major reforms affecting access are under consideration in France, while in Britain the comprehensivization of secondary schools has provoked national debate on the school examination system in that country. Although the German-U.S. Study Group on Access to Higher Education may not come up with concrete and lasting solutions, its work should help to clarify some of the main issues in access and the interdependence of access with other elements in higher education systems.

DILEMMAS IN ACCESS: THE GERMAN SITUATION

Klaus von Dohnanyi

I shall attempt to shed some light on the access situation in Germany and compare it with the U.S. system. First, however, let me emphasize what James Perkins said in his introductory statement, namely, the problem of access to higher education is a social problem of great explosive power. In all industrial societies in which an increasing division of labor requires the increasing specialization of personnel functions, the institutions which prepare—or should prepare—people for such functions have a very important role in distributing social and economic opportunities. Access to higher education, therefore, means access to better and more interesting jobs. Systems of access to higher education involve a distribution process, the determination of who is to be taken in and who kept out, whose opportunities should be increased through higher education, and whose should not.

Even though the problems of access to higher education present themselves rather similarly in different countries, there are many and important differences in detail. To understand the German situation one must realize that the Federal Republic of Germany maintains an education system which is frequently described as a "tunnel" system. Since around 1920 all children start their schooling in a four-year elementary school; after that they are distributed among three types of schools which lead to different opportunities for further studies, especially with regard to higher education.

The *gymnasium* is the school generally involving nine years of secondary schooling and culminating with the *abitur,* which gives those earning the *abitur,* the *abiturienten,* access to the universities —provided the universities have the necessary space. In this connection, while there is no constitutional right to enroll in higher education, there is a constitutional right of equal opportunity for higher education and of choosing one's course within it. Moreover, even though the universities have the right to limit access according to their capacity to accommodate students, whether the capacity of a given university is sufficient to admit a person to the university is not solely up to the judgment of the institution itself. To the extent to which capacity is available, there must be equal rights to access and free choice among the institutions for the *abiturienten.*

As already mentioned, at age 10 children are distributed among three types of schools of which only the *gymnasium* generally leads to the *abitur* and thereby to the right to enter a university. Many other ways have been developed for young people to move from the two other school types (*real schule* and *hauptschule*) into the upper sections of the *gymnasium* and thereby to the *abitur* and finally to higher education (in contrast to transfer from *gymnasium* to lower level schools, it is very difficult to shift from the latter to *gymnasium*). Also, the other school types permit access to institutions falling between the school system and higher education, and graduates of these institutions generally may have access to the universities. Nevertheless, it is apparent that in Germany those children who at the age of 10 have an opportunity to enter the *gymnasium* generally already have the key to higher education. No wonder that many parents and teachers today, and of course the children themselves, want to keep open their life opportunities and thus tend toward the *gymnasium* at age 10 although it is a school with a very classic curriculum, generally providing mainly theoretical knowledge rather than the practical knowledge needed for many functions in life.

In my view the German school system still is a class system. As long as children are distributed at age 10 among various schools with different opportunities for further education, judgments are inevitably made not just on the talents of the children but largely on the pocketbook and the financial and social circumstances of the parents. A society which claims equal opportunity in education should realize that age 10 is far too early to judge in a democratic way the different abilities of children so that their life opportunities can be distributed according to talent, whatever this may be in our type of society.

Career Rigidity

The situation in Germany is further complicated by the fact that, much more than in the United States, careers, in particular the civil service, depend upon degrees obtained in the universities or other institutions of higher education. So the "tunnel" really has a much longer extension than just from the 10-year-old children who go from elementary school to *gymnasium* in order to be able to attend university. The tunnel extends from there into civil service and other functions in society which are tied very closely to the type of previous education and the degrees obtained. Thus, in the Federal Republic of Germany there is much more need to make an early decision to attend university than, for example, in the United States, and there is much more need to complete university study if one aspires to the jobs in society which are rigidly connected with university degrees.

This to some extent explains the pressure on the universities in Germany and also on the *gymnasium* which provides the easiest route to university and to the degrees so valuable for later life. Basically we have a system by which we distribute life-long opportunities largely among 10-year-old children, which is not only socially unjust but necessarily causes our system to malfunction with regard to the distribution of students among various types of education. Another aspect of the German situation which I believe is unique was well conveyed by a friend of mine when he said that "Germany is not only a state of law but a state of law suits." By that he meant that we have a particular way of approaching the problem of equality that has become a highly quantitative matter which the courts are supposed to check and to control.

It might be of interest that in the reform of our university law I attempted to have included in the admission process a letter of recommendation for applicants in addition to the teachers' grades. With this letter of recommendation I was falling back on British experience in trying to get away from the very formal and very quantitative basis of grades alone as applied today in Germany. The Left and Right in my country vigorously opposed this proposal and on similar grounds, namely, that it would open the access to all types of corruption and uncontrollable favoritism. Thus, because a certain system was not quantifiable, it was rejected due to the particular German attitude toward equality as a quantitative matter. I keenly regretted this development because I knew how difficult it would be in the long run to make grades a solid basis for access, as we see today in Germany.

To summarize the situation in Germany: on the one hand we have a system which is anything but socially fair because it distributes children at the age of 10 among different systems of schools, giving very different chances for further education, in particular in the universities. This system is re-enforced through a high rigidity of careers based on university degrees. On the other hand, our system in principle gives priority to equality and implements it on a very quantitative level, and this leads to the distribution of university places according to grades. The unwillingness of the Germans to leave any part of the decision making on access to what I would call a "black box" and to rely solely on quantifiable data carries its own injustices, as we can well illustrate from the results of the system of *numerus clausus*.

If I perceive the American situation correctly, it differs greatly with regard to the two elements I have described. First of all, graduation from high school, varied as the schools may be in the United States, theoretically includes similar rights for all graduates. Every graduate from any U.S. high school has the theoretical right to enter any college or university in this country, provided the institution will accept him. By contrast, a graduate from a German *real schule,* for example, has no right to go to university unless he was able to shift over to the *gymnasium* or to enter some other institution of higher learning, graduation from which then permitted him to go to university. Thus, as unequal as the situation may be in the United States because of the different quality of the high schools and their different standing in the access procedure, the basic structure is not only more simple but also gives more equality of opportunity. However, the combination of a greater degree of university autonomy and the differentiation in the higher education system in the United States (which does not exist in Europe at all) includes injustices in the sense that schools and universities with higher standing offer better opportunities for access to the better institutions of higher education or jobs. At the same time, this diversification, since it includes a lot of "black box" judgments by the institutions, may give more individual justice than the quantified system that we try to apply in Europe, and in Germany in particular.

Conclusions

Let me now draw some conclusions. First I should like to emphasize that, whether in the United States or Europe or Japan or any other country in the world, there is no perfect solution for the selection process in access to higher education. Even in an open access system there exist, at least in those faculties with limited capacity, such as medicine or law, distribution problems which contain the same elements as the access problem in general. In other words, selection will always be imperfect, and all we can do is to optimize our solutions but never really solve our problems. Nor will there ever be an optimum solution for all time. Society is changing and our set of values is changing, and we must adjust our system of selection and distribution of social opportunities through higher education in accordance with these changes. Thus, all we can do is try to arrive today at an optimum system which will be challenged tomorrow.

Second, there is no system that can be applied to all societies at the same time with the same results because we have to take into account differences in culture, in the education system in general, in the job market system, and also in the social values which apply to our system of selection or distribution.

With these two general conclusions accepted, let me try to define the goals we should have in mind in trying to organize a fair system of access to higher education:

—We should give everybody a reasonable opportunity for learning and personal development.

—We should recruit persons for those jobs or functions in society which they can best fulfill. In other words, we do have a need for elites, even in a democratic system.

—We should pursue the goals of opportunity for all and the selection of an elite with a maximum of equality of opportunity.

—We also should carry out this distribution or selection with a minimum of pressure on the individual during his time in elementary school, as the situation in Germany confirms.

—And finally, we should maintain high standards of quality in the universities, above all in university research.

Applied to the German system, this means, first, that we should abandon the "tunnel" system and extend general or comprehensive school, or as we say in Germany, *gesamtschule*, at least to the age of 15. Second, we should open the civil service in a more liberal way to capable people without a university degree.

We should also keep in mind that education involves specialization, and learning has a distributive function because the better trained people have better opportunities to fulfill the more complicated and more responsible functions in society. Hence, even if we open careers totally, we cannot escape the reality that universities have a highly distributive character.

In order to achieve more equality along with the other goals already mentioned, let me add the following elements especially pertinent to the German situation:

First, entrance to higher education should be less dependent on exit grades from secondary school because to the extent to which the access is based on performance at the secondary level, there is increasing pressure on the people in secondary school.

Second, to maintain equal opportunities and yet let people develop at different levels and ages, the universities must be kept open for those who have not had an opportunity at their first attempt. In other words, although we may have to channel young people at age 15 or 16 into different educational paths, those who go into vocational training at that age rather than into the more academic *gymnasium* should, as graduates with vocational training, then be able to go into higher education if they have performed appropriately. This would ease the pressure and spread the opportunities more equally.

Also—and this has been important in our discussions in Germany—we should permit people to take university degrees on the basis of practical experience in fields lending themselves to this. To illustrate, in business management it should be possible for people who worked in companies as responsible persons, for example in accounting, to take degrees after a very short (or even with no) attendance in university courses in order to permit them to progress in their careers. Such a system should be an important element in what could be a basic set of principles for the selection or distribution process of scarce places in higher education in Germany.

ACCESS AND EQUITY

Lois Rice

Access, however defined, is a social issue involving problems of equity and justice, as well as individual needs. In the United States this issue involves not only the college admission or selection process. It also involves another process, namely, the measurement device that is used to determine and judge equitably a family's ability to pay for postsecondary education. Important in this connection are various programs to aid students in financing their postsecondary education. First, however, some social problems require discussion in order to put the access and financial aid situations in a broader perspective.

Basic inequities persist in the enrollment of students in higher education in the United States. These inequities have prompted public policy, particularly at the federal level, to focus on student assistance as the major vehicle for helping to achieve equal opportunity. In the 1960s the Congress authorized programs to improve the access to higher education of new classes of students whose educational aspirations were soaring—the children of the poor, blue-collar workers, and minorities. The impact of these programs cannot yet be measured.

The federal government had to intervene not because the states, which are part of our federal structure, are somehow malevolent, but because by themselves they are incapable of meeting societal demands which cut across state lines. They vary greatly in their resources, and their efforts are often so diverse that they compound rather than ameliorate existing inequities However, even though the new federal programs launched were numerous and the rhetoric that accompanied them profuse, the social commitment to reorder priorities and focus scarce resources on the objective of equal opportunity was lacking. Today, equal opportunity is still an unachieved goal, part of the unfinished business of our times.

Inequities of Access

First, with respect to the participation rates in higher education, low-income students are nearly five times less likely to be enrolled in postsecondary education as high-income students, and the situation has not improved markedly over time. In 1967, 13.1% of families with annual incomes under $3,000 had dependent children enrolled in college. By 1969, the proportion rose to a high of 16.5%, but in 1970 it dropped to 13.9%. It has remained fairly steady at that level despite expanding federal and state student aid programs targeted at these low income students. However, while new programs of aid may not have improved this situation, they may well have been responsible for keeping up the participation of low-income students during a period of spiralling costs of higher education.

If it is argued that the comparatively low college-going rate of high school graduates from poor families is acceptable because such graduates tend to be less able, as measured by their high school performance and test scores, the answer is that poverty seems to be much more decisive than ability in determining who enters the groves of academe. According to a study conducted by the National Center for Educational Statistics of the federal government, the National Longitudinal Study, the highest ability children in the lowest income quartile attend college at a lower rate than the next to the bottom ability quartile in the highest income group, as the statistical table below demonstrates. Specifically, 72.1% of the most affluent students were enrolled in college immediately after high school graduation as compared to 45% of the students from the lower income quartile. And college remains valuable to the former group. The enrollment rate of the least able high-income students exceeds that of the second highest ability quartile students who are from low-income families.

These disparities are even more pronounced when we consider subgroups within the population. This is illustrated by the enrollment rates of blacks, taken as an example not because they are the only or even the most disadvantaged minority group in the United States, but because they are the largest group, the most widely distributed, and probably the most studied in terms of statistics. For present purposes, therefore, they are used as surrogates for the others who have also been left behind in our educational and social systems.

COLLEGE ENROLLMENT RATES OF 1971-72 HIGH SCHOOL SENIORS ONE YEAR AFTER GRADUATION

By Ability and Family Income (in percent)

	Ability Quartiles (High School grades)				All ability levels
Income Quartile	**Bottom**	**Second**	**Third**	**Highest**	
Lowest	29.9	41.3	47.3	63.8	45.4
Second	31.7	47.5	57.9	69.7	52.6
Third	35.0	48.7	63.8	74.6	57.2
Highest	47.2	64.4	76.6	86.4	72.1
All income levels	35.3	49.9	61.8	74.8	56.8

Source: National Longitudinal Study of the High School Class of 1972. National Center for Educational Statistics.

In 1974, the black family median income was 58% of white family income, down from the high point of 61% achieved in 1960-70. Put another way, in 1974 black family median income was just about the same as white family median income in 1966, an eight-year lag. And while it is evidently now a fact that white and black high school graduates from low-income families, under $7,500 a year, are equally likely to attend college the next fall after high school graduation—about 45% according to the National Longitudinal Study—that comforting parity disguises the fact that 57% of black high school graduates come from low-income families, while only 19% of whites do. Because enrollment rates increase with income, the concentration of blacks at the bottom of the income scale means that their overall enrollment rate is only 72% of the white rate.

Another aspect of the inequities in higher education enrollments relates to the distribution and retention of students. The Alexander Astin paper* shows that poor students are heavily concentrated in low-cost and often (although there is not a direct correlation) low-quality institutions. In particular, low-income students are concentrated in the two-year colleges. Nor does the impact of poverty on enrollment, or the type of enrollment, end with the act of matriculation; 70% of the high-ability, low-income freshmen who entered U.S. colleges in the fall of 1972 came back for a second year.

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* Alexander W. Astin, “The Myth of Equal Access in Public Higher Education.”

The comparable figure for high-ability, high-income freshmen was 90%. Again, racial differences compound these inequities. Forty-eight percent of all black freshmen and 32% of those in the highest ability quartile are enrolled in two-year colleges and vocational schools, while comparable figures for white freshmen are 41% and 26% at these institutions. There are significant differences too in the persistence in college of blacks and whites. For example, a recent census survey found that 41% of black students and 57% of white students who entered college in 1971 were enrolled as seniors.

Our own discussions have dwelt on expectations and aspirations, and these hopes cannot be ignored until "the decks are loaded equally," until low-income and high-income students can share the fruits of higher education. For many segments of our society higher education is still the only means of gaining upward economic and social mobility. Although various observers have pointed out that the value of higher education has declined, this is by no means the case for the minority population if in fact it applies to the majority. It continues to be clear that only with a college education can the black male in our society ever hope to achieve an income equal to that of a white high school graduate. There are still only two major routes to upward economic and social mobility for the blacks in America—the military and postsecondary education.

A subject touched on earlier in the seminar is of particular interest in connection with blacks. One third of all black Americans are now below the age of 15. While blacks are currently 10.5% of our total population, by 1984 black 18-year-olds will be 18% of all 18-year-olds, and Chicanos or Mexican-Americans will be 24% of all 18-year-olds in our five Southwestern states. These data obviously have significant implications for higher education.

Basic Grants

Conditions of poverty and race were among the motivations for the great society programs of the 1960s and the higher education legislation of 1972 which set up special programs of student assistance designed to support needy students in postsecondary education. Of all of our federal expenditures for higher education (excluding research), nearly 80% is now in the form of aid to students. This aid takes many different forms: work-study, grants and loans, and it has expanded greatly, at least at the undergraduate level, since 1965. A federal program started in 1972 is having an enormous significance, the Basic Educational Opportunity Grants Program. Eligible students receive grants regardless of where they live or attend college. If they are enrolled in a qualified institution of postsecondary education, whether a traditional, proprietary, or vocational school, no ability test is required. If the student's or his family's income is such that he qualifies, the student can receive up to $1,400 a year to attend the institution of his/her choice. Since fiscal year 1973 this program has grown from a meager $140 million to $1.3 billion. As with many other programs, the Basic Grants program is need-based; how this need is measured will be discussed later.

The Basic Grants program was added to two other federal grant programs, one enacted in 1965, the Supplementary Educational Opportunity Grant Program (SEOG), which is administered through colleges and universities and now involves in excess of $300 million. The State Scholarship Incentive Program (SSIG), enacted in 1972, is a program of federal matching to foster the development of state scholarship programs to aid needy students. At the moment the states spend more than $600 million apart from the federal dollars already mentioned in direct grant aid to students.

In addition, U.S. colleges and universities have long spent enormous sums of their own monies on aid to needy students. A recent survey done of a group of thirty leading private institutions in the United States, the Consortium on Financing Higher Education, showed that they had collectively spent $500 million on institutional grants in the last ten years, while in that same period they received $38 million in federal monies. In addition to grant programs, aid programs have been developed to provide work opportunities and loans for students. As the foregoing summary has suggested, there is little if any coherence among all of these programs. Perhaps unlike other countries, our federal programs developed largely as the result of accretion and congressional compromise. Nevertheless, a number of programs are attempting to provide greater opportunity for needy students within our society to lessen the inequities cited earlier. The role of the College Entrance Examination Board in these programs has been important.

Well before 1965, in fact in 1954, the College Board, using the Educational Testing Service as its vehicle, developed a means to measure the ability of families to pay for postsecondary education. This became fairly controversial. In 1954 there were no major state programs of grants or loans to students. Admittedly, the costs of higher education were (or seemed) less than now, but nevertheless substantial in terms of 1954 dollars. Resources were scarce, and many were being spent on students whose families could well afford to pay the higher education bill. So as a kind of rationing device to distribute the scarce dollars more equitably and to aid students who were being left behind or left out of higher education, the College Board developed what is known as the College Scholarship Service. Not a test, it is a method for determining how much students and their families can afford to pay for college. Need is defined on the basis of the cost of the educational institution, minus what the family can pay. The difference is what the student will need to enter or complete the college of his or her choice. For example, if the student is going to a college that costs six-thousand dollars (as some institutions in this country now charge), and if the family contribution is three-thousand dollars, then somehow that extra three-thousand has to be met by federal, state, or institutional resources—loans, grants, work. To ease this process, the voluntary sector, namely the College Board and ETS, supplemented by a similar program of American College Testing, attempts to measure family ability to pay. As part of the Basic Educational Opportunity Grants program, the organization developed its own way of measuring student eligibility. We now have, therefore, a federal assessment of eligibility or ability to pay, and at the same time all federal and state as well as institutional programs use the systems designed by the private or voluntary sector.

Additional Financial Support Possibilities

We have other problems in financing students in postsecondary education which neither the College Board, ETS, or the government have been able to solve. For example, how do we finance recurrent education for adults in postsecondary education? We cannot expect independent adults to draw upon discretionary funds to support themselves in higher education in the same way as we determine the family's ability to support their dependent children. We have not only a problem with emancipated adults but also with emancipated younger people, age 18. One proposal is to give a voucher to everybody at age 18 to help them buy a portion of postsecondary education, or to buy whatever goods they may wish to have as part of a lifelong learning opportunity, whether at age 18 or 68.

The measurement of need and proposals for support of the young and old in postsecondary education are part of the equal opportunity objective I cited earlier. These are among the several challenges to a continued focus on that goal. One certainly is the current scarcity of dollars for competing domestic programs. In higher education we must fight for state dollars and federal dollars, and are forced to develop trade-offs among public subsidies for education.

One major way of financing U.S. students in higher education has always been through indirect subsidies to students through low tuition prices—low tuition is viewed by some as a principal way of aiding needy students. Others consider low tuition prices as an inefficient use of scarce resources because it subsidizes the well-to-do as well, and there may well have to be trade-offs between the subsidies that we provide the rich and the needs of the poor.

A second challenge to the equal opportunity objective is that middle-class Americans are feeling very pressed by the costs of postsecondary education. But our middle-class, which is so oriented to postsecondary education, faces the problem of what type of college their child will attend, rather than the question of *whether* their child will attend college. The poor are desperate for funds, and we should not take scarce funds away from the desperate to aid the "merely miserable"—namely our middle class.

Another challenge to the student aid focus of federal policy, as well as that of our states' policy, is that many individual institutions and sections of our postsecondary system are concerned about their fiscal viability. They are concerned about survival, and, regrettably, there has developed an unnecessary and false dichotomy within our policy debates about aid to institutions versus aid to students.

These challenges take on new dimensions at a time when our country is weary with what in the 1960s we called our "war on poverty." To date these challenges have not succeeded. But they do persist. They should not, however, deter us from continued support of programs to bring talented young people from low-income families into the mainstream of higher education, and hence into the mainstream of our society.

THE MANAGEMENT OF ACCESS POLICIES

William W. Turnbull

Although the title suggested for my presentation is the "Management of Access," I should emphasize at the outset that access is not a process that is manageable in the sense of being controlled. Rather it is one into which many of us aspire to introduce some processes that, in the context of the many forces brought to bear on it, will make it a little more orderly and a little more readily managed than so far has been possible. Let me first try to clarify the relationship between the College Entrance Examination Board and the Educational Testing Service (ETS), something that has eluded most people in this country.

ETS

To start with ETS, it is a large organization devoted principally to problems of measurement, the organization of measurement services, and research in human behavior. It is devoted also to the evaluation of educational innovations and educational processing. In general ETS usually operates by providing measurement services that are required by other elements in American education, typically groups that are organized around a particular level of education or educational theme. For example, American law schools have the Law School Advisory Council, which determines what kinds of measurement would be helpful in the admission of students to schools of law. A membership association without a large apparatus for conducting measurement programs, the Council turns to an organization like ETS that has those facilities in place and the resources to carry out the work.

Similarly, the College Board is a membership association. The Board consists of about 2,300 member institutions: perhaps 1,400 colleges and 900 schools. The College Board has an enormous operational enterprise over which it exercises policy control.

Rather than setting up its own apparatus to carry out those operations, the Board has turned to ETS as the executive agency for most of the testing activities of the College Board. These examples should help clarify the College Board-ETS relationship.

In a similar way, testing programs, from elementary school through adult education, typically are conducted by ETS on behalf of the appropriate educational association. For example, the graduate schools in the country have a Graduate Record Examination Board that looks for ways to improve the transition from the undergraduate to the graduate level of education, and ETS undertakes those testing services. A great many examinations are in the field of professional certification. The National Conference of Bar Examiners has turned to ETS to construct and give the examinations sponsored nationally by that group for admission to the practice of law. Increasingly ETS is involved in certification of competence in the health professions, and in providing tests for self-assessment by professionals working in such fields as dentistry or psychiatry. ETS is also working at the undergraduate level to certify competence at the end of the four-year college. At the other end of the scale, ETS has an infant laboratory in which research is carried out on the identification of conditions in early infancy that appear to lead toward the development of curious, active, outgoing children versus withdrawn and slow-to-develop children. ETS is very active in the preschool and primary school areas, working in both English and Spanish languages because of the large number of Hispanic children in this country. So much for a brief panoramic view.

Roughly, the staff is about 2,400 people, and the budget is 60 million dollars a year. The money comes principally from the fees that candidates pay to take the examination for admission to college, to graduate school, to law school, and the like. Typically, as mentioned, ETS is working in relationship to a body like the College Board, which is by far the largest of the groups with which it is associated and has the most extensive program. ETS collects the fees from the candidates and then is reimbursed for its services at cost plus a small fee by the College Board or whatever other group we might be working with at the time. Roughly 75% of the budget is devoted to problems in measurement or the provision of services. About ten million dollars is spent for research and development, and the remaining 10% goes largely into instructional work. A substantial instructional program brings people to ETS or sends ETS staff out to conduct workshops in an effort to ensure that the work done in the other areas—testing programs and research—is as fully understood as possible.

Three important features of the Educational Testing Service should be stressed. First, it is an independent organization. It is not managed by governments, universities or schools, or by the students who take the test, although those parties have very close relationships with it. ETS has its own board and charter, but its responsibilities arise out of its very close working relationships with governments, with universities, and with schools. Second, except for the in-house research and its own self-generated educational program, ETS is an agent of a number of bodies of which the College Board is by all means the most important in terms of funds and activities. But that relationship is an arms-length relationship of two partners who continue to negotiate and renegotiate their relationship. It is an agent of the College Board and other associations that wish the ETS to conduct studies.

Third, ETS is not the only testing body in the United States. The American College Testing Program (ACTP) also runs educational tests and is also an independent body. In general, ACTP is a midwest-based organization, for geographical reasons more directly connected with the large public educational institutions in that region, although ETS is active in the midwest too. Both organizations now operate nationally. For example, ETS has eight regional offices spread across the country.

Role of Testing

A few remarks about the U.S. education system may be useful to show how testing fits in it. American higher education is characterized by great diversification. This applies to the nature of the curriculum, the quality of the teaching, standards for entrance, grading and degrees, and to the basic purpose of the institution. All those aspects of diversity are equally true of the secondary school as these vary enormously with regard to curriculum, teaching quality, and the meaning of the grades that they award. This diversification goes right down through the elementary school and into the preschool. At that stage it must be recognized as inequality because while diversity at the college level affords a choice to the individual, diversity at the very early levels amounts to inequality of opportunity.

Several circumstances shape the need for access procedures and measurement systems. First, it is impossible to overstate the complexity of the educational structures and processes involved and their interactions. At the same time there are unwritten customs and dynamics. Young people growing up in the system observe the underlying structure that amounts to the rules of the game. Unfortunately, some people are closer to the center of that game and understand the rules much better than others, and therein lies one of the sources of inequality and one of the reasons why the U.S. system, like most systems, becomes a class system. Some people are close enough to the process to understand it well. Others who have not had similar advantages and have not come up in the central academic tradition of the country, do not understand it and do not play the game as well. The inequalities that show up at the time of application to college have to be seen as having their roots in very early experiences of the child that have accumulated and led to a situation of inequality at grade 12.

The information or misinformation, as the case may be, that guides the young person's decision on postsecondary education goals does not and cannot involve grade 12 only. The information gathering process begins at least at the beginning of high school when most students begin thinking about what they will be doing after high school. They are subjected to a large quantity of hearsay, parental suggestion, and local tradition. But there is also in the schools a system of guidance counseling aimed at helping the student to pull together the information directly pertinent to his or her chances of success in applying to a variety of institutions. The student's aspirations are shaped by this guidance process although more by other forces. In some countries, for example the Soviet Union, it is the universities rather than the schools that take the lead in providing guidance or professional orientation to help the student visualize his opportunities in one field of study or another. In the United States the tradition has been to center most of that activity in the schools with the universities playing a secondary role. Rather than their reaching out to discover talent in the schools, it devolved upon the guidance counselor in the school to do that positive talent search and to motivate the student to the process of self-discovery.

In this student guidance, the most important criterion used is the previous grades of the student. Second are scores on the standardized tests given in the schools, particularly to help in the process of guidance. Third is teacher assessment, and fourth the interest the student has demonstrated, particularly by participating in extra-curricular activities—athletic, artistic, mechanical, and others. These factors are also the most important ones looked at by the colleges and universities as they try to assess whether the student would do well in their institution and should be admitted.

Admissions Testing

Let me turn to the admissions process, itself. Mr. von Dohnanyi observed that the mechanics of access must be attuned to the cultural, social and educational structures and processes of the country in which they are employed. I fully agree. In the United Staes the process of attuning the mechanics of admission or access to broader social concerns or movements has been an evolutionary one. The processes have not been mandated by any central authority; they have simply evolved in a manner that is as rambling as has been the evolution of the educational structures within which the access procedures exist and which they are intended to serve. Each college or university decides for itself whether or not it wants to be selective. As about half the students in this country go into nonselective, or minimally selective, institutions my comments apply only to those colleges or universities that have a selective admission process. Most of those require that students applying for admission take either the examinations of the College Board or those of the American College Testing Program. The College Board tests are taken by about 1.4 million students a year, and the ACTP deals with about 900,000. Between the two there is therefore a very substantial number of students who are having tests scores supplied to the colleges, about 2.3 million (of whom about 300,000 probably take both tests).

How the tests get taken, scored, and reported is a large operation, and is run entirely by nonprofit, independent agencies, rather than by the government. The student is also required to fill out an application and often asked to write a substantial essay about why he wants to go to college. He supplies information about what he has done out of school, and has his high school send a record of his grades to the colleges that he is considering. Typically he will apply simultaneously to three or four different colleges, hoping to be admitted to all of them so that he will have a wide choice in deciding where to go. When all this information is in hand, including test scores, grades, teacher recommendations, and the rest, the college will typically have an admissions committee that reviews the information and comes to a decision. This is a "black box" decision. The student may be admitted to all the colleges, or he may be admitted to none. In the latter case, since there are open door institutions, he always has the option of attending college. It would be wrong, however, to give the impression that the students in the open door institutions or community colleges are to any great degree made up of students who tried to get in elsewhere and failed. The great majority of students in the open door institutions enter them as a matter of their first choice. However, having open door places available is a great safety valve in an otherwise controlled and rather technical system.

Apart from the uses of tests in selection, there are important other uses, for example, in shortening the time that students spend in college. In the United States the Advance Placement Program enables some 100,000 students a year to take special courses in high school and at the time of application to college, to take examinations in those subjects. If they pass, typically the college will grant them credit for having accomplished the work in that particular subject. The student may take several such exams and as a result over half the entering class of Harvard, for example, enter not as freshmen but as sophomores with only a three-year program left to go. This program is important to the schools because it gives their better teachers an opportunity to teach at the entering college level. It is important for the colleges because it shortens the time needed for graduation and also prevents the poor morale that results if students are in the first year of college repeating work that they have essentially completed in school. And, of course, for the student it has enormous advantages in that it relieves the boredom of doing something over, and at the same time gives the student an opportunity either to shorten his university course or to take other things instead within the four years and enrich his program.

A topic mentioned in relation to the German situation is the award of credit for work done outside the educational system altogether. Again, an examination system is used quite widely for that purpose in the United States. The College Level Examination Program (CLEP) is designed for use by people who have gained their knowledge and expertise out of class and who can prove it through an examination system. So, through the Advanced Placement Examinations that bring people into college initially with advanced standing and through CLEP (both College Board programs), examinations are playing a role in access that enhances considerably their usefulness beyond their role in direct selection.

Moreover, under the ETS-coordinated project entitled the Cooperative Assessment of Experiential Learning (CAEL), about 250 universities in this country are cooperating to provide common systems for appraising the learning that takes place quite apart from any organized course, for example from two years' experience in the Peace Corps. The question is what has that done for the individual that could be translated into terms that a college can use for some sort of equivalency. Validating such experience does not lend itself to an objective examination.

To come back for a minute to why tests are used in selection: I think they do have utility, although they are neither necessary or sufficient. The utility to the college comes about primarily because of the enormous diversity among the high schools. The college receives applications from students from all over the country, with grades that may be uninterpretable to the college because of the diversity in grading standards. The college looks for a common yardstick in the test scores since they are objective, standardized, and given in the same form all over the country. Thus, they allow the college to interpret better what a B average means in a high school from which that college may never have had a student before.

The utility of tests to the student is also a function of that same common yardstick. Even though the students do not like an extra examination, many feel that a common examination program adds an element of fairness to a situation in which although they may be fearful of rejection, they are even more fearful of being treated in a way that is unfair. There is also a streak of idealism in students of that age that says it is simply appropriate in a national system of this kind to have national means of assessing which give everyone an equal chance. Test scores also allow the student to estimate his chances of getting into a particular college, to discover the college or set of colleges in which he has a good chance of being successful. As mentioned earlier, undergraduate selection is a matter of sorting students on the basis of test scores and other records, rather than denying them access to the system. However, denying a student admission to the college of his first choice while giving him access to one of lesser prestige may not be seen as equality of access; this is one of the controversial issues in the access picture.

A word about admission to the graduate level and the professional schools of law and medicine. The system is essentially similar to that at the school-to-college level, but the problem changes in a substantial way because those schools are invariably oversubscribed. Only about half the students who want to study law can. Thus, if the student makes a mediocre record in college, does not do well on the admissions test, and does not obtain highly favorable references from the "black box," he is unlikely to be admitted to any law school. Unless he tries again and is successful in another year, he is not going to have a career in law, and that puts an additional and enormous pressure on the system. As the tests are the most visible part of the system in such career or no-career decisions, it is at this point that the criticisms of testing become most vehement because the tests are a lens through which to focus many other discontents.

Finally, apart from access to individual institutions or a set of institutions, like our 140 law schools, there is the question of access to learning opportunities. They may exist within the institutional framework or outside it. In a highly differentiated system, as in the United States, I am convinced that more attention must be given to the function which is very broadly called guidance. Helping people to find the learning opportunities that exist for them inevitably is going to involve the most critical set of problems of access that we have in the United States, and tests should help contribute to their solution.

PROBLEMS OF ACCESS IN THE CONTEXT OF ACADEMIC STRUCTURES

Burton R. Clark

We need conceptual assistance in thinking about access to higher education, systematic categories that will help us analyze and compare the national academic structures that, among other effects, condition problems of access and solutions to those problems. An approach that centers on basic structure directs attention to the heavy historical momentum of systems of higher education and encourages a long-run view of "innovations," releasing us from the need to write the latest chapter on current events. It is congenial to the hardheaded view that "there is no solution";[1] that is, there are no magic buttons to push in changing patterns of access; there are no large answers, barring revolutionary situations that occur infrequently, but only incremental gains. Even small advances ordinarily require time spans of five to ten years, or even a quarter of a century, instead of the one- and two-year periods within which political and administrative thinking is so often cast. And the gains that we realize are likely to have costs, sometimes anticipated and gladly paid but often unanticipated and unwanted.

A structural view that is informed by a sense of historical development also points to country-by-country variation in solutions to current problems. For example, it makes little sense to advocate American forms of decentralized educational control for some of the centralized national systems in Western Europe unless the time has come in the countries involved for a genuine devolution of government to regions or for the taking of the risks that are entailed in turning over "a public good" to private enterprise. As the second example, Swedish innovations are usually not transferable to other countries on grounds alone of special characteristics of Sweden. The country is very small (only eight million), culturally

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[1] Comments by Klaus von Dohnanyi in earlier discussion of a conference paper.

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homogeneous, politically sophisticated in social planning, and has had until recently a system of higher education that contained all of five universities. The solutions that work are embedded in the integration of a small country well into state planning. How different are the conditions of systemwide innovations as soon as we observe nations of 50 million population (France, Germany, Italy, Great Britain), let alone Japan with over 100 million and the United States over 200 million, all of which have educational authorities and interest groups that are more numerous, more fragmented, and, in many cases, more ideologically contentious than those of Sweden.

Demands Upon Modern Higher Education

Before turning directly to academic structure, we need to say a word about modern forces that play upon them. From the outside and from within, national systems of higher education are subjected to a proliferation of demands. The student clientele becomes more heterogeneous, as higher education moves from elite to mass numbers. Labor-force demands become more numerous and varied: the division of labor proceeds steadily onward, subdividing old occupations, creating new ones, and upgrading still others, giving higher education a preparatory connection to many more fields of endeavor than in the past. At the same time, the fields of knowledge that are rooted inside higher education fracture into more specialties, and more fields are brought in from the outside and made a part of the vast mixture of fields. Thus, the internal knowledge base is itself a third major source of greater variety of demand.

All these fundamental forces that press for appropriate structure also now operate at a pace that is more rapid than in the past. Thus each system as a whole, but not every part of the system, is under pressure to adapt more quickly. The rate of change in itself becomes an important force, and structural adaptiveness, in the sense of quickness of response, becomes a major concern of macro-administration. But here we shall require long time spans as frames within which to choose among current policy alternatives, since every current change, once institutionalized, becomes a source of rigidity that might block innovations in the future. There is little doubt that those who are currently fashioning systems, e.g., the Department of Education and Science in Britain, are creating future rigidities.

The problem is to shape systems to answer current requirements while minimizing the resistance to future changes that will be as much needed in their day. For example, adaptability in the future is probably helped if current changes are effected by administrative or collegial discretion rather than written down in national law. But, with West Germany leading the way in the West, the trend is in the opposite direction, toward an elaborate jurisprudence of higher education that will weigh heavily against experimentation and adjustment in the future. In producing such long-term effects, current change-minded interest groups that proceed through law may quite literally not know what they are doing, or, if they do, care overwhelmingly that their own special interest become more strongly vested in the structure at whatever the cost in later adjustment.

Four Forms of Structural Differentiation

With these pressures in mind, I turn to the concept of differentiation in order to develop a scheme that can frame discussion of problems of access. My basic proposition is: the possibilities of changing modes of access are heavily conditioned by the structural differentiation of academic systems. We can distinguish four kinds of differentiation, as occurring vertically and horizontally, within institutions and between them.

a. Differentiation Within Institutions: Horizontal

Horizontal differentiation occurs within the individual university or college chiefly in the form of a division of labor among fields of study. The basic structure shows numerous chairs, institutes, departments, and faculties, arranged side by side, that organizationally express the fields and disciplines. In apparently every system, these organizational units and fields exhibit differential access: no matter how much access to the entire system is opened up, there are some highly selective fields and some relatively open fields. Medicine generally manages to be selective, as do the natural sciences, while the social sciences and the humanities are much less so. The reasons for the differences are often expressed in such pragmatic terms as limited laboratory space and professional need. But we may note that the structure of knowledge in the various fields also has much to do with it. For example, most of us find at some point that we cannot go on in mathematics: for some, the stopping occurs in the secondary schools, for others, the washing out takes place in the first several years of tertiary education. It turns out that there are individual differences in capacity to handle mathematical knowledge, something that has become fairly well measured. There is a definite sequence of progression into and through that body of knowledge, and most of us either voluntarily remove ourselves from the progression at a relatively early point or the mathematicians see that we stop by denying entry to courses for which we have not fulfilled the prerequisites. So access is limited, either at the door of the institution, the door of the major, or the door of the classroom. There is much self-selection out of the field, in anticipation of a formal denial, and lateral movement to other fields.

Thus, open access systems and open door universities and colleges will continue to have within them limited access to certain fields, *de jure* or *de facto*. Then the crucial matter becomes the ease of lateral movement within the institution: internal transfer is part of the access problem. If a student wants to become a physicist and enters the appropriate program only to find after two years that the path to that goal is barred, what then? If lateral movement is easy, as in changing majors in U.S. undergraduate education, then the student rotates on to economics or political science or sociology or education or business. Most U.S. campuses have at least a handful of majors in which persistence alone will bring completion, and career choices are made accordingly. In contrast, lateral movement may often be extremely difficult, as in the case of highly autonomous Faculties within European universities or at the graduate level of U.S. universities, and, indeed, it must be, once advanced levels of specialization are reached.

In sum: imbedded in the horizontal differentiation of universities and colleges is differential access to constituent units. While the institutions may vary greatly in the magnitude of the differentiation, the most fateful difference is the ease or difficulty of lateral movement. Access tensions are thereby increased or decreased: one way to reduce such tensions is to make internal mobility easier.

b. Differentiation Within Institutions: Vertical

Vertical differentiation of the location of activities and programs within individual institutions is even more interesting than the horizontal. The differentiation centers on levels of training and certification, and more precisely on the organizational units that are responsible for the levels. To simplify, we may speak of one-tier and multitier systems. The one-tier system has been found in the European mode of academic organization in which the professional school is entered directly after completion of the secondary level. The student enters immediately into medicine, or law, or architecture or other professional fields; *or*, enters one of the natural sciences, social sciences, and humanities on a similar basis that he is entering into a field of specialization. The first major degree certifies professional competence: in some countries it is the only degree that counts for much, as in the case of the Italian *laurea*; and, in others, a second or third degree is available to only a few, as in the Japanese case where a graduate level has had a very low ratio of students to the undergraduate level. In such structures, historically, strong units of organization above the first degree have not been needed and still today are either absent or only weakly developed. In Italy, there is still a problem differentiating a second and third degree. In other countries where there is something like the Ph.D., it is handled by the same faculty unit that concentrates its energies in first-tier operations. The "Faculty" does all.

The contrasting situation is a clear cut two tiers where the first level is largely involved in general or liberal education, with limited specialization available as students choose a major in a field of concentrated study. Here the first major degree generally does not certify professional competence, as in the case of the bachelor's degree in the United States, and it does little to open doors to specialized lines of work. Specialization finds its home in a second tier that is clearly set off in a distinctive graduate school and in separate professional schools that can only be entered after completion of the first level. This structure developed in the United States in part because we had the undergraduate college in place before the university mode of organization came along in the second half of the nineteenth century. The second tier offers professional certification and certification of capacity in specialized fields.

In multitier arrangements we find a parallel to the way in which secondary education has served traditionally as a screening device for higher education. As the secondary level has become universal, the screening function moves up a level: then the first level within higher education must screen for second, third, and fourth levels. One can imagine this process moving up and up. Just as the U.S. high school diploma became virtually an automatic award, so may the U.S. Bachelor's degree in time be assured to those who persist. If that takes place, then graduate schools will use a first tier within their own operation to screen more for advanced work. Screening is always in the picture: the Ph.D. screens for a postdoctoral level that is now embryonic in several societies; the Medical degree screens for advanced medical training.

Thus, the multilevel system can combine open and limited access, face in different directions, and handle different functions. But in a single-tier system, the one level has to do everything and the tensions have to be much greater. In addition, all the tensions of access of the whole system are typically recapitulated inside each institution. All the tensions of access to the entire national system of Italy are recapitulated in the University of Rome, or the University of Naples, or the University of Milan, and, in each case, at essentially one level of organization.

Single-tier systems, facing the demands earlier set forth, are now strongly inclined to "innovate" by turning the first year or two years of study into a screening device, implicitly if not formally. As a result of the European version of the open door (all who navigate their way through appropriate secondary schools are automatically admitted to higher education), large waves of students wash into the first year. But testing hurdles are now increasingly placed at the end of the first year or the second year of higher education to wash out many students and reduce the wave to manageable size. We can predict that single-tier systems will tend to become multiple-tier systems in one way or another, in order to couple open access with limited access. They will move into multiple degree levels, including a short-cycle arrangement that gives a degree below what historically has been the first professional degree. They are likely to find advantage in setting off graduate work distinctively in an administrative unit of its own, and more postgraduate work will gradually evolve beyond what is currently the highest professional degree. We can imagine at least five-level systems, since the United States already exhibits four: a two-year Associate in Arts degree, tended to mainly by the community colleges; the historic Bachelor's degree, well supported in undergraduate units; the Master's degree and the Ph.D. degree, both rooted in graduate school units (with a single professional degree that is the business of the postgraduate professional schools). But more on this when we come to speak of vertical differentiation *among* institutions.

In sum: the nature of vertical differentiation of programs within academic institutions conditions their problems of access. In current decades, an increased degree of differentiation is a fundamental response to the problem of coupling open and limited access. When we ask of certain national systems, now preeminently the American, how they are able simultaneously to perform contradictory and even irreconcilable operations, part of the answer is found in extensive vertical differentiation. Different interests? Then, different levels.

c. Differentiation Among Institutions: Horizontal

Horizontal differentiation among institutions mainly takes the form of sectors. We can note empirically three arrangements. One is the single sector found when a nationalized set of universities monopolizes higher education in a country. The second is a binary or multitype differentiation of institutions—the university, the teacher-training college, the technological institution—with all types under the public purse and serving as major parts of a national system. The third is a mix of sectors that includes one or more private ones together with state-sponsored ones. Italy is an example of the first, England of the second, and the United States of the third.

In comparative perspective, the differentiation of institutional types in the American system, the most extreme in the world, is staggering. The simplest mapping still produces five or six types: the private university, the public university, the private college, the state college, the two-year community college, and "all others"—a melange of detached theological schools, medical schools, art schools, and others. An effort of the Carnegie Commission in the early 1970s, to be a little more precise, produced over ten important categories, even leaving the public-private distinction aside.[2] And with some 2,800 to 3,000 institutions to be encompassed, most primary categories contain great variation. For example, the "private university" sector contains not only the high-endowment research universities to which we typically point, but also, in greater number, both secular and Catholic institutions that have little or no income from endowment, do little or no research, and, much as in the Japanese private institutions, operate with high student-teacher ratios that allow most costs to be covered by income from student tuition.

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[2] *A Classification of Institutions of Higher Education.* A Technical Report sponsored by The Carnegie Commission on Higher Education. Hightstown, New Jersey: McGraw-Hill Book Co., 1973.

Japan also exhibits considerable differentiation of sectors: the imperial universities; other public institutions; private universities; private colleges. The Japanese have astonished all of us who have assumed that mass higher education will naturally fall upon the public purse by having moved into mass higher education mainly by expansion of the private sector. They went more "mass" by going more "private," so that now some 75 to 80 percent of student enrollment is in the private sector, financed by the tuition payments of the Japanese middle class. However, the Japanese have worried increasingly about low quality in this sector—apparently a case of "more meaning worse"—and in the 1970s the national government has increased the flow of public monies to it, with, of course, some "guidelines" to raise standards. But even as the private institutions become more quasi-public than ever before, they retain meaningful differentiation from the several types of public institutions, especially the imperial universities in which high status has been imbedded.

Whatever their problems, the U.S. and Japanese systems have found sectoral differentiation advantageous in helping to plunge so far into mass higher education. The most difficult problems occur when differentiation of sectors is minimal. When countries have largely a single sector, the nationally supported public university, that sector must handle all the heterogeneity of modern mass higher education. It must absorb all the students, whatever their diverse interests and capacities, perform all the functions, and respond to all the expectations that are laid on modern systems. Our European colleagues find so many of their central universities plagued with overload. The universities are whipsawed by contradictory functions, with a gain in one function producing high costs, high negative effects, in another function. For example: Torsten Husén has expressed deep concern about the fate of the research function within the Swedish university, as the attention of government and its central educational ministry becomes heavily concentrated on another function, that of preparation of the undergraduate.

What, then, are the "solutions" to problems of mass access in the systems with little or no differentiation of sectors? One is to go on calling everything a university but to allow and encourage the variation that already exists under that label to widen. Anyone who knows the Italian or French scene knows that under the same label and official stamp of institutional equality there are significant institutional differences: attending a hilltown university in Italy that has only a faculty of pharmacy and a faculty of law is not the same thing as going to the University of Milan or the University of Rome. Such *de facto* differentiation can be manipulated by public policy, and, indeed, by local ambition and entrepreneurship. Different mixtures of programs at different places, with even some universities becoming more specialized while others become more comprehensive, can be a partial counterpart to explicit separation of sectors and is very likely to occur in systems where tradition and politics dictate the use of essentially one label for units that educate beyond the secondary level.

A second solution is to move some of the traditional university functions to the outside as the new ones crowd in. Sweden might well decide to move research increasingly outside the university, "managing" research in a separate structure of research institutes. After all, there has been much experience with this form of differentiation in France, Eastern Europe, and the U.S.S.R., with great variation in the specific patterns. Specialized training can also be more assumed by industry, enlarging the educational sector composed of classrooms in the factory and the firm. Or, specialized training may be more assumed by schools supported by ministries other than the ministry of education, units of government that have different missions, constituencies, and responses than those of the mainline educational bureau. One need not be cynical to assume that various governments have, and will, consider these ways of protecting valuable operations, when participation and politics come to absorb the energies of university faculties and point their development in directions not desired by those occupying positions of central governmental power. The response is: "Let them have their playpens—but we will funnel research monies into separate institutes isolated from the madding crowd and train for top grades in the civil service by means of special schools."

The handling of contradictions between open and limited access is easiest in the multisector systems since differential access among sectors can be established, maintained, and legitimated more readily than visible differentials within a single system. Here again, however, the key to viability may be the ease of transferring from one sector to another, the systematic provision of some avenues of lateral movement. Some years ago Warren Willingham referred to transferring as the number two access problem in the American system.[3] The movement of students from one college to another, we may note, is largely movement from one sector to another, from two-year places to four-year places, from four-year places to universities, and so on. That movement, in the 1960s, amounted to over 500,000 students a year. This intersector mobility abates some of the tensions of differential access, since it offers later alterations in the sorting occasioned in the first cut of entry.

d. Differentiation Among Institutions: Vertical

The question of vertical differentiation among institutions within national systems brings us to the difficult and sensitive problem of a prestige hierarchy of institutions. Official or not, there will usually be some such prestige differential, usually heavily traditionalized and deeply embedded in the social structure and culture of a nation. With the differences in prestige, there are commonly also differences in amount of financial support. This is the most difficult kind of differentiation to grapple with, especially as we attempt to reconcile it with egalitarian interests.

The vertical differentiation initially comes from the horizontal. If there is only one sector in horizontal differentiation, then there is a possibility of having relatively little vertical hierarchy in the system. If a country works for a century or century and a half at trying to equate institutions, *and* has a national degree instead of an institutional degree, *and* elaborates an ideology that the state-awarded degree has the same value for professional employment no matter where one studies, then the hierarchical tendency can be diminished. If a country has multiple sectors of horizontal differentiation, a steeper hierarchy is more likely. Why must this occur? Because the different sectors will be handling different functions and those functions will vary in social esteem. A unit that leads to high-status occupations will be ranked by the general population above a unit that leads to lower-status occupations. A unit that does research will, in most countries, rank above a unit that does not do research.

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[3] Warren W. Willingham and Nurhan Findikyan, *Patterns of Admission for Transfer Students*. New York: College Entrance Examination Board, 1969.

Differential prestige among institutional sectors has received some attention in research, particularly in the work of English sociologists, who, in studying the traditional secondary level of the British system, have made the point that a parity of esteem cannot be achieved among institutions that perform different functions.[4] So long as different schools perform different functions, with some routes vocational and terminal while others lead on to the university, there will be a major degree of institutional hierarchy. The move toward the comprehensive school in England has been an effort to reduce the hierarchy of sectors.

Thus, horizontal differentiation will lead to some vertical ranking or placement. The questions become how much hierarchy exists in each system, what are the functions and dysfunctions of the vertical ranking, what can policy do to effect changes, and what will be the benefits and costs of proposed changes? Official policy can work to reduce a high degree of vertical ranking and democratic doctrine can be used in education to blur and soften sharp edges of invidious distinction. But it is not to be supposed that hierarchy can be eliminated, a search that is on a par with the ideal of a classless society. No society has figured out a way to effect equal status for all occupations, nor for the training institutions that, above the level of common education, must provide specialized routes to occupations that require advanced preparation. Even if we could equate all colleges and universities in their social ranking in an advanced industrial society, the price in dysfunction would probably be too high. For there is so much that higher education is involved in and does that apparently is well-served by some hierarchy of institutions—and especially the freedom of institutions, like individuals, to try to better themselves, even if this means asserting a persistent claim that in regard to a certain function—liberal education, a scientific research, community service—we do it better than others.

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[4] Olive Bank, *Parity and Prestige in English Secondary Education*. London: Routledge & Kegan Paul, 1955.

Purposes and functions are inordinately complex and cannot be reduced to only one, which is the basic mistake of the paper by Astin that appeared in the background reading of the first week of this conference.[5] Astin's logic makes the simplifying assumption that the purpose of public systems of higher education is to improve the performance of the individual, which then allows a value-added approach to how much institutions improve performance, which then can show as much gain for a year of study by mediocre students in mediocre places as by outstanding students in outstanding places. He implies that differential prestige is simply self-serving and mischievous, and policy should move to eradicate it. But all the many functions of higher education cannot be subsumed under that simplified version of what higher education is about. It does not speak to the evermore elaborate institutional arrangements constructed in modern society for research—the cultivation of new knowledge as a means of social progress and even, within the disciplines, as an end in itself. Nor does it speak to the institutionalized arrangements in higher education for protecting and disseminating the historically received knowledge component of a society's culture. Similarly, community services are not readily subsumed under the single purpose of improving the performance of the individual.

The point is to keep the multipurpose nature of higher education in mind in considering various recommended access policies, since so many tend to focus on equal access and treatment for all individuals in very large systems and exclude consideration of effects of those policies on other basic features. Simple approaches that assume a simple reality lead to major unanticipated and unwanted effects. For example, it is unrealistic in considering changes in access policies not to consider effects on scientific research. Certain aspects of that function are highly esoteric and expensive, and are served by a concentration of resources, highly selective access, and merit-based prestige—rather than equal distribution of resources, unselective access, and a democratization of prestige in which we are equally good because we are alive and attempting to fulfill individual potential. And the great simplification of issues so often performed by analysts has almost nothing to do with the way decisions are actually made, as described by Boyer earlier in this conference as he depicted the hell-fire of pressures, some legitimate, some not, that rained upon a state chancellor each day and the way that officials have to adjust their priorities from one week to the next and from one year to the next. At a minimum—that is, with a clear head—the official has to work with a broad profile of values and functions that need to be kept in some reasonable balance.

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[5] Alexander W. Astin, "The Myth of Equal Access in Public Higher Education." (A 1976 undated, unpublished paper).

The vertical differentiation of sectors must be researched for its effects not only on open and limited access but also on such values as scientific progress, the transmission of traditional culture, particularly in its more esoteric and sophisticated aspects, and differential training for advanced lines of specialization. A number of important functions seem to be protected and served by vertical differentiation. In the United States, a limited number of essentially research universities group certain highly advanced activities in their graduate schools, while two-year colleges and four-year colleges have other roles that attend to other demands and activities. The logic of the analysis developed earlier in discussing tiers within institutions applies even more to tiers among institutions. Not only can different purposes and functions be given due protection and development at the different tiers in a hierarchy of institutions but also open and limited access can be more readily combined. In the United States, the first tier is open, and has been open for a long time in some states. The California mode of open access via the two-year junior or community college was developed in the 1920s and 1930s, backed by important presidents at the University of California and Stanford University, and was well in place by World War II. But the higher tiers are selective and in fact have become more selective in the last quarter of a century. The vertical placement of institutions in the California mode has worked relatively well—compared not only to European systems but also to "open admissions" in New York City of the post-1970 period where political pressures permitted less vertical differentiation, and the old noted four-year colleges became more directly involved in mass entry. There the backing and filling on differential access to two-year and four-year units has been great.

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Those who attend to problems of access and offer advice on solutions cannot responsibly escape the four aspects of differentiation on which I have concentrated. Complexity of task and differentiation of structure interact in a fundamental way. A few systems that are already quite differentiated may find their main drift in reform is to tighten a loosely integrated national system, toward a happy middle ground of autonomy and coordination. But most national systems, possessing little differentiation relative to modern task complexity, will be facing increasingly heavy pressure to loosen their integration and in that way seek a new balance between autonomy of parts and coordination of wholes. Questions of access must be located in these broader matrices of differentiated national structures. If we must have a key problem, differentiation is it. Evolved structural solutions to increased task complexity will be the substructures on which "innovations" in access will succeed or flounder.

HIGHER EDUCATION: LIMITED OR OPEN ACCESS

Ernest L. Boyer

Introduction

I have been asked to talk about the problem of open access versus limited access to higher education. To assure a common reference point, I'd like to accept Jan Szczepanski's definition: open access means a place in higher education for all graduates of secondary schools having the required credentials. Limited access means a selection among such applicants.

To add some vividness to the topic, I'd like each of you to pretend that you are in charge of a large public university in America. To reduce the pain, let's limit the role playing to just one day, from the time you get out of bed until you hurry home at night.

Your day beings at 7 a.m. when you read in the morning paper that the state legislature, in a late night session, approved what is described as an "open access" higher education bill. The legislation calls for increased funding at every community college which agrees to admit all high school graduates. This is a social breakthrough.

In explaining his support of this landmark legislation, one senator declares in the news release that this new "open access" bill reflects his conviction that every qualified young person has a right to higher education. "In America," he says, "it is socially unacceptable for one student to have an opportunity to go on to college while another is denied. "After all," he says, "all young people have parents who pay taxes and have an equal right to college for their children just as they have an equal right to use the public highways."

Another senator defends his support of the full opportunity bill —not because higher education is a "right"—but because it is a necessity. "After all," he says, "you can't land a good job without a college education, and I believe everyone should have access to some college beyond high school." Reading on, you discover that a third senator says that he's delighted to support the higher education bill because "it will be popular with the voters back home."

You leave for the office, buoyed by the morning headlines, and convinced that the goal of open access to higher education has been firmly fixed. The state in which you work now believes that every able high school graduate should have the opportunity to go to college.

Your day is further brightened about midmorning when you learn that the Federal government has just passed a student aid bill, which will provide grants and loans to economically disadvantaged students. These two legislative actions suggest to you that in America a higher education framework is being erected at both the state and Federal levels which affirms the concept of full opportunity. Motivations may vary, as the legislative quotations clearly indicate, but it seems quite clear the state's and nation's policymakers are affirming open access.

Pleased, you go to lunch. While dining, a key legislator approaches your table and asks, half kiddingly, "Why are there so many kids in college these days who have neither the ability nor the motivation to go?" You don't want to remind him that this query is not fully consistent with what has just become state policy, but you avoid a confrontation and hurry back to the office.

Soon after your return, a legislative staff aide calls to ask if you, as chancellor, could look into the case of Mary Jones, who was rejected for admission to the university. She comes from an important family, you are told. It is your obligation to explain the wisdom of that rejection to the legislator.

By midafternoon the open access vs. selectivity question becomes more blurred when you receive a letter from a fiscal officer in the state, who reminds you that next year's budget should be based upon a "no growth" enrollment. This is a bit discouraging because your admissions director has informed you that student applications for admission are currently 5 percent higher than last year, and you also know that at that moment the forecasts are for the largest number of high school graduates in your state's history.

The day comes to a climactic close when you receive a letter from the statewide coordinator of education who says that he has decided to close down three undergraduate programs within the university since students graduating from these programs will not be able to find a job. Your day finally ends. You go home a bit confused.

I

I have asked you to imagine such a day—a composite of many days to be sure, and in several different states—to dramatize the fact that in the United States we have no clear-cut policy of access to public higher education. We have a whole range of policies that differ from state to state and occasionally from year to year, depending on the shifting fiscal and social circumstances in the nation and the several states; and those directing U.S. higher education's institutions must steer their way through these changing signals about the role of higher education.

There are those, of course, who firmly believe that access to higher education should be open and unrestrained. Education is a human right, they say, and no one should be denied an opportunity which is available to someone else. It is a social fairness doctrine which is hard to deny.

A *Change* magazine essay on open admissions in the summer of 1973 put the case this way: "We court social chaos, if not revolution, if we follow policies that condemn large numbers of people to a cramped and ugly life, one that must be acted out in full view of those whose access to the things Americans have been taught to want is substantively greater. A mere glance at protest literature like John Steinbeck's *The Grapes of Wrath* and *The Autobiography of Malcolm X* suggests how intense is the anger and how overwhelming the frustration of people so denied."

Those who support open access say—as did the senator I quoted earlier—that it is quite impossible for most persons to cope in a complex industrialized world without *some* education beyond the secondary school. And they note that historically our nation has tried to match the formal education opportunities in America with the skills one needs to cope. From the earliest colonial days—before we were a nation—young people were given a free education so that they could learn to read and write. Reading and writing were essential. Then came universal primary school education, and later secondary education for everyone.

Today, many argue, at least two years beyond high school are now required in order to cope in the 21st century. This is consistent with our tradition in which the level of formal education provided was linked to the skills needed to get along. That's a practical utilitarian argument.

The third argument in support of open access is political: the recognition that the support of education is popular with the voters. Now, unless I have missed something, most of what is argued to justify open admission falls in one or another of these categories.

II

On the other hand, I also hear talk increasingly in the United States about limiting access to higher education. There was greater enthusiasm about open access ten years ago than there is today. Currently there is a sense of confusion about the value of college and how it relates to the social and economic needs of this nation.

These limited access arguments fall usually into one of three categories. First, some argue that access should be limited because a considerable number of students have neither the motivation nor the ability to finish college. Frequently it is suggested that the ability pool is restricted, only 20 percent, 25 percent, or 30 percent of all young persons have both the ability and interest to handle the rigorous work of higher education. Even Thomas Jefferson, a supreme democrat, supported this notion. And they note that at many public colleges almost half of all students who are admitted drop out before completing their degree requirements.

On a more practical level others argue, secondly, that access should be limited because that state just doesn't have the money to build the buildings or pay the costs of educating every person who would like to go to college. Few public officials will say publicly that access should be limited because students don't have ability. They can—and often do—move to restrict access to higher education because of limited physical space or limited funds.

The third argument in support of restricted access, or selective admissions, relates to the job market. There are those who insist that there are simply not enough jobs for highly educated people, or that the economy has no need for so many well-trained, bright young people. The solution, they suggest, is to turn off the "input" spigot because we don't want to flood the job market later on.

III

So we have a choice: an open, full access university or a selective, limited access university. What are the consequences that flow from whatever way we choose?

If the decision is to limit access, then the overriding question is: how is access to be limited? Who is to be kept away, and what criteria should be used?

If one opts for the open access decision, then the issue becomes access to what?

In the United States we have drifted toward an open access concept. In the State of New York, for example, we have tried to make some form of higher education available to every student eager to go on learning. And it seems to have encouraged greater education. During the 1950s about 45 percent of high school graduates in the state went on to higher education; during the '60s it was up 55 percent; and now we are up to 64 percent.

Increasingly our basic problem has been to provide a collegiate program that is as diversified and broad ranging as the students who come to study with us. Having opted in New York for open access, our concern becomes access to what?

In New York we have a six-part public higher education network, grouped together as a single state university. We have the community colleges, two-year technical colleges, the four-year arts and science institutions, several university centers, professional schools, and a new noncampus institution, Empire State College, to serve primarily the nontraditional student.

As we have moved toward greater access the problem we have faced is not how students are to be *rejected* but rather how they are to be *distributed*. This, of course, is not easy—matching students and institutions—and in New York there has been some trial and error as well as careful and constant analysis of student interests, emerging economic needs, changing state patterns.

I would like to stress one point. Some educational theorists argue that because we have diversity among colleges, we therefore have inequality. This, in my opinion, is just not true—or at least it does not have to follow. In fact, I am inclined to turn the argument on end and say that *equality of institutions (if such a circumstance was possible) means for the student inequality of opportunity.*

In U.S. higher education, we have a remarkable variety and range of colleges, making it possible for students to study, for example, molecular chemistry, agriculture, poetry, or urban affairs. To argue that unless everyone can have access to the equivalent of, say, an Ivy League college, we don't have equality, is, in my opinion, a position which ignores diversity among students, diversity of work, and diversity of knowledge itself. It is, of course, true that some colleges have more prestige than others. And it is also true that some students land in the wrong kind of college. But open access means that we have moved from a selective, somewhat homogeneous student group to a student group with many different skills, abilities, and academic interests. This requires a broad range of institutional options if the new, broader group of students are to be well served.

To establish full opportunity of learning as well as full opportunity of admission each of the several kinds of colleges needs to be excellent in its own way. A technical college does not have to be Harvard, but it can have a Harvard-like excellence in its own special field of offerings.

I do not mean to be facile about this crucial issue. Sometimes the academic options are not well described to the students. Low income or educationally disadvantaged students may not be able to take advantage of the full range of options available to them. It is also true that on the "output" side, graduates from less prestigious colleges generally may not move into leading positions as quickly as do graduates of noted universities. That might, of course, be a function of the jobs to which they go, or their own abilities at times, but the status of that college may be a factor too.

Even so, I believe these are "refinement" problems, and our fundamental job in public higher education is to develop a network of higher education institutions in which the spectrum of opportunities is as broad as the students to be served. And the kinds of institutions one develops relates directly to the access policy one uses.

IV

This brings me to my final point. It relates to outcomes. One may accept the open access view philosophically and provide a broad range of options which matches the educational interests and abilities of the students. But whether an increase in the collegiate student population through open access is well linked to society's social and economic needs is another matter. And this is where the debate in America has now focused.

I tend to be less frightened by this issue than some others. Nonetheless, I wouldn't turn off the issue lightly. For open access calls for an act of faith—a belief that education is a worthy end in and of itself and that in the end students will be able to sort themselves out, that graduates will be able to live satisfying lives and also find satisfying jobs.

Occasionally we are assaulted by stories of outstanding college graduates who are not employed or underemployed. Not long ago one of our national magazines featured a story about a university graduate with a Ph.D. who had started a taxicab service in New York City. He was hiring other graduates and was calling his operation the PhD Taxi Company. Well, some people find this slightly scandalous—and from one point of view it is.

After all, everyone, including college graduates, should live up to his potential. But, to argue that college fails unless our graduates get only certain kinds of jobs or get wealthier than other people is to limit our goals to a single one; it justifies college on the basis of the perpetuation of class distinctions. This is a position I would hesitate to espouse. We should rejoice if in fact both college and noncollege graduates are moving into productive work and if the income gap is not as great as it used to be. So I find a shaky thesis in the argument that college study is no longer worthwhile because the average income of the college and noncollege gap is closing.

Similarly, I happen to gain satisfaction from the trend to employ college graduates in fields other than the traditional ones. Such a trend can be viewed as an enrichment of work of all kinds in our society. We have sometimes had a notion that there are only certain legitimate jobs for degree holders. However, we need to encourage our students to consider all sorts of options. We must give greater legitimacy to the notion that work and liberal learning can be fused in a more authentic way; and this move is a responsibility of the colleges themselves—as we counsel students, reorganize the curriculum, and build more work-study arrangements with industries beyond the campus.

So we come full circle. To accept open access to higher education introduces the central question, "access" to what? Then, upon graduation the student faces a second access question—how to move into society to engage in productive and socially satisfying work. These questions are perplexing, to be sure. But they offer a greater challenge and spring from a larger vision than is a decision to exclude large numbers of students from the opportunities of education before their talents have been tested and their dreams fulfilled.

SOCIAL JUSTICE AND THE PROBLEM OF ACCESS

John W. Nason

The problems of access to higher education, to which the seminar participants addressed themselves throughout the first week, reflect the increasingly strident demands for social justice. As one member put it, the world—especially the Western world—has recently been obsessed by a desire for equality—not just equality of opportunity, but equality of results. Since education has come to be recognized as a powerful, perhaps the most powerful, social device for improving the condition of mankind and the status of individual men and women, the demand for more education has grown to overwhelming proportions, especially in the last two decades. In some parts of the world the demand has been for elementary and secondary education. In Europe and North America, it has been mainly for higher, or perhaps more properly, postsecondary education.

The demand for postsecondary education may have peaked in the United States five years ago. Demographic factors plus some disillusionment with the material rewards of a college or university degree threaten to reduce the number of the 17-24 age cohort demanding admission to full-time conventional programs. In Europe, however, the explosion in enrollments started later, and while enrollment demand is now increasing more slowly, the enormous pressures created in the 1960s are still having an important impact. In percentage terms the increase, starting from a smaller numerical base, has been much greater than in the United States. On one side of the Atlantic the supply of educational services and places is threatening to exceed the demand. American higher education is facing the problems of static, if not declining, enrollments and resources. On the other side many universities are bulging with students and are struggling desperately to accommodate their facilities and their philosophies to a "learning explosion."

Access can be limited or unlimited, i.e., open. But what does open access really mean? Is it the same as equal access? And what does equality of educational opportunity really require? The seminar participants generally agreed that equality of access to higher education, like perfect equality of opportunity, does not exist and never will. Access is a social, cultural, economic, and political problem, not merely one of educational techniques. The earlier in the life of the schoolchild that a decision is made respecting the kind of education he or she should have (the academic or vocational or technical "track" he should travel), the more his access to higher education is limited. The less freedom he has to switch tracks, the more restricted are his educational opportunities.

Even in countries like the United States, with comprehensive secondary educational programs, the equality of schooling varies from state to state, city to country, public to private, indeed, from one school to another. Objective testing, such as that conducted by the Educational Testing Service for the College Entrance Examination Board and by the American College Testing Program, is supposed to offset such inequalities of schooling, but it has long been clear that family background, economic conditions, cultural opportunities or deprivations, the social conditions of urban, suburban or rural life affect the test results. For example, while in the United States 47 percent of the third (next to highest) quartile in ability and lowest quartile in income go to college, the same percentage of those in the bottom quartile in ability and highest quartile in income attend colleges. European participants pointed out that these and related figures indicate that the United States is far ahead of most European countries with respect to social and economic barriers. However, the fact remains that socioeconomic barriers do exist.

Equality of Educational Opportunity

Granted that we live in an imperfect world, by what system or by what devices will we maximize equality of opportunity? Is social justice better achieved through a uniform educational program, as in France, or through diversity of programs and institutions, as in the United States? The European traditional educational philosophy has led to (1) early segregation by type of ability or interest,

(2) a uniform program of schooling for those headed for the university, and (3) a high correlation between university success and professional employment. The North American pattern has developed along opposite lines: comprehensive elementary and secondary schooling, wide diversity of postsecondary institutions and programs, and with the exception of relatively few occupations such as medicine, law, and certain branches of engineering, a wide open market for the graduates.

Members of the seminar concluded that equality of educational opportunity is better served by diversity rather than by uniformity. Granted individual differences, whether innate or induced by environment, any approach to truly equal educational opportunity can only mean that each individual should have access to some kind of institution which will serve his or her particular needs. Furthermore, it means that there should be great freedom or flexibility for the individual to change his course and, as he grows, to move from one type or level of institution to another. Whether the choice of program will be made by the individual or by the state will depend on the extent to which a society correlates higher education with manpower needs.

Diversity must be carried even further if genuine equality of opportunity is to be approached. There are other ways of learning besides formal schooling. Social justice requires recognition of these alternatives along with diversity of institutions. At present Western societies place too much emphasis on the formal aspects and institutions of learning, thereby creating a social bias detrimental to those who learn better or who are compelled by circumstances to learn in other ways.

Self-Fulfillment

Two questions kept recurring throughout the discussion. One is the proper balance between education as the cultural and intellectual enrichment of the individual (self-fulfillment) and education as vocational or professional training. How to balance the self-centered with the society-oriented aspect of education? To be sure, every system of education includes both, but in what proportions? In the United States self-fulfillment is a dominant phase of many, if not most, undergraduate programs. In Continental Europe professional competence becomes the central theme. Neither, however, excludes the other completely, and with burgeoning enrollments composed of students from diverse backgrounds, with diverse interests, and with greater needs for self-discovery, a better balance between the two needs to be found. Should this take the form of community colleges and two- or four-year programs in the liberal arts and sciences before entering upon what many Europeans would call serious university study? Should it be a comprehensive university, comparable to the *Gesamthochschulen* in Germany, offering diverse programs of differing lengths and levels? Or are there better solutions?

Related to this is the influx of students "without conspicuous intellectual interest," as one member of the seminar aptly described them. This is a phenomenon in all countries today. What kind of education will provide a kind of holding pattern for students as yet uncertain of their future careers? Along with them are the new breed of older students, some of whom return to the university for professional advancement through recurrent education, but many of whom are taking advantage of its "redemptive" function to make up for lack of opportunity earlier in their lives.

Instruction/Research

The second question is the proper balance between instruction and research. Ought all higher education be intimately tied in with intellectual research, as is the case—in theory at least—in European university systems; or should there be some separation between teaching as the transmission of knowledge and research as the discovery of truth? The European members of the seminar, struggling with the conflict between a tradition of elitism and the importunate demands of mass education, tended to support the former, whereas the American members were inclined to distinguish between the two functions, restricting research for the most part to colleges of academic distinction, graduate programs and a few special institutes.

A close correlation between higher education and subsequent professional opportunities, it was noted, inevitably introduces a high degree of selectivity. It limits flexibility and therefore opportunity. With an expanding enrollment it creates problems largely avoided by more diverse and flexible systems.

Access Dilemmas

Access depends not merely on availability of suitable places, but the means to occupy those places. Who pays for education? What does social justice require? If education primarily serves the needs of society by providing the right kind and amount of educated manpower, then the proposition that society should pay the cost of education becomes persuasive. If, however, education is viewed primarily as value added to the individual, it would seem reasonable to argue that he or his family should bear the cost. Is education, like the highway system, a necessary obligation of the state; or is it, like the automobile, an individual choice and enjoyment? National traditions have led to different answers. In Italy higher education is free, and students receive "salaries" or allowances to cover living costs and foregone earnings. In Sweden they receive state loans ultimately to be repaid. Why, however, it was asked, should low income people whose children rarely go to the university pay taxes to support children of the rich who do? In Holland tuition is being introduced as a matter of social justice. In the United States the mixed economy of public and private institutions with a wide range of charges and with a widespread federal, state and private scholarship systems presents another way of meeting the financial issue.

Are we facing the prospect of educating too many students? Is there such a thing as too much education? The seminar reached no clear and unanimous conclusion. In times of unemployment individuals take jobs for which they are overqualified by conventional standards, thereby raising levels of performance and ultimately the employers' and employees' expectations of work. But, as one member pointed out, the value of education is broader than job training and over or underqualification is largely a matter of what employers consider desirable.

Two issues were raised in passing and left without full discussion. One was the extent to which educational systems seek out talent so that it is not wasted. It was generally agreed that this is desirable, but not adequately done. The other was the suggestion that, as in China and Tanzania, service to society rather than talent should be a major criterion for access to further education. Some question was raised whether this would actually work in modern industrial societies.

II. SYSTEMS OF HIGHER EDUCATION

HIGHER EDUCATION SYSTEMS: MYTH AND REALITY

Ernest L. Boyer

I have been asked to talk about the gap that exists between what higher education systems say they do and what actually goes on. The assignment is difficult, not because there is no such gap, but because I do not know which "system" to describe. We have no national higher education structure in America, and there are dramatic differences in the way higher education is organized from state to state.

As a solution I shall try to present a composite picture describing a "typical-hypothetical" state system of higher education, and for this shall draw not only upon my own experience but also upon the experiences of colleagues in other states. Twice each year I meet informally with the heads of the nation's seven largest multicampus public universities. In these sessions, we expose our administrative warts to each other, and today I shall try to pass along, but on an anonymous basis, some of the confessions I have learned.

Myth and Reality: The Structure of the System

First, a word about the gap that exists between the real and the ideal in the structure of our higher education system. There is a widely held notion in the United States that we can have a system of higher education which, while it coordinates and plans, will, at the same time, remain detached from the administrative and accountability functions. We are now beginning to discover that this dichotomy will not work. The reality is that those who coordinate higher education must also have the power to execute their plans, and they must be held accountable for what the system does or does not do.

In earlier days when higher education was expanding on every front, and we had lots of money, super boards were created, and they carried on the "illusion of coordination." It now is becoming clear that it is quite impossible to coordinate and not implement. In reality, all coordination did was to speak abstractly of collaboration and to summarize and comment on the want list of the separate higher education sectors. But now, we face not expansion but consolidation, and the mask of coordination has been peeled away. We are beginning to understand that if hard choices and trade-offs must be made, they must be made by those who will be held accountable for the decisions and have the legal and administrative responsibility to make them work.

The point is this: We must create systems in which the *coordinating functions* and the *accountability functions* are interlocked. To separate these two obligations in our higher education structure is to spread confusion and create the worst of all worlds. Myth and reality must be brought together.

There is another myth—the belief that it is possible to have a higher education network, without clarifying the role of the separate institutions *within* the system. In my opinion, such an arrangement will not work. A system almost by definition requires a network of separate, complementary institutions each with separate missions; without such clarification, confusion will prevail.

There will be some overlapping functions, to be sure, and some interinstitutional confusion will persist. But the goal must be to discriminate among the institutions and to assign to each one a special role. If this is not achieved, resources will be allocated on the basis of political infighting, power struggles or cooky-cutter formulae rather than on the basis of *differential formulae* to support *differential missions*. Confusion about missions will poison a higher education system, and campuses very soon will discover that their survival is tied not to the system but to their own political clout. *That* is the reality.

This brings me to another myth about structure. Some higher education systems assume they can carry on without mutual respect among the units locked within the system. I am convinced again that this disequilibrium will not work. Of course, some campuses within a system are larger than others. Of course, some campuses have more complex missions. Of course, some campuses require special resources to carry on their work. I believe such differences can exist and that the integrity of the system can be sustained. If one unit has too much power or if there is too much favoritism or if one or two overpowering institutions dominate the system and carry special favor, then the higher education structure will begin to fly apart much as a flywheel does when it lacks even balance.

It is a myth to assume that a system exists just because a group of institutions have been brought together by a legislative act or a proper plan. Unless there is also a sense of equity and balance, the system may have form but no integrity.

Myth and Reality: The Planning Process

Second, higher education systems often have a gap between what they say they do and what actually goes on in the planning process. Most systems, for example, prepare long-range plans. These plans assume that tidy future projections can be made and higher education's future can, with confidence, be predicted.

This, of course, is not the way it is. Increasingly, colleges and universities, in the United States at least, are forced to plan, not from decade to decade, but from day to day. This is not to say that educators should not look ahead. Rather it means that stable planning cannot be carried on in a context of unstable resources and increasingly higher education is being shaped, not by future projections, but by fiscal crises.

Here is another point. Most higher education systems talk about planning as if it applies uniformly to all functions. The truth is that considerable control of planning and administration shifts from function to function.

Let me illustrate the point. In the State University of New York, enrollment projections and construction planning are primarily the responsibility of the statewide office. Campuses are involved only secondarily. Budgeting, on the other hand, is a more evenly shared function. A single statewide budget is required, to be sure, but each campus is expected to prepare recommendations and participate in active consultation. Moving along the spectrum, the appointment of faculty and the development of curriculum are campus-based, and the system's statewide office becomes the secondary partner. A higher education system is strengthened as it moves from a simplified pattern of decision making and recognizes that the process is complex, with the focus of decision making in the system varying considerably, depending on the function.

Myth and Reality: The Government Process

One final note: There is a belief among those who lead higher education systems that systemwide interests will overshadow parochial concerns. Well, this is not quite true. In our own university system, for example, we have tried to develop a governance mechanism which makes it possible for representatives from local campuses to share in decision making, statewide. This strategy makes sense since the system does have its own agenda and people from the campuses should help shape policy which will affect them.

But the reality of statewide governance is something else again. It has been our experience that campus presidents–the heads of our separate units—understand the importance of the system and participate actively in statewide planning. On the other hand, faculty are less interested in the governance of the system, focusing most of their political activity on the campus. And so it is with students. The system is for them remote, quite unrelated to the Saturday night dance or the exams to be completed before they graduate.

All of this should keep systemwide administrators very humble. While they may perceive the higher education system they direct as crucial, those being "coordinated" may have other concerns, for instance, their own academic department, their discipline or the local institution. This, then, is the reality–participation in a system is taken more seriously by those who run the system than it is by those who try to function within it. And from my perspective this built-in inconvenience, while it may frustrate the system managers, is not all bad.

ALLOCATION OF RESOURCES TO HIGHER EDUCATION

Alain Bienaymé

Yesterday Torsten Husén invited seminar participants to speak not with "guts," but with written documents. My written sources are, first, a report prepared by a committee I chaired last year on the problem of financing French universities,[1] and, second, an article I wrote after last year's Aspen Seminar.[2] I will also draw on an interview I had with the official mainly responsible last year for the allocation process in France.

Also, Ernest Boyer said that we ought to distinguish between myth and reality. A myth is a kind of luxury which is rather widely shared by a relevant population. However, the myth of ideal planning is not at present within the reach of the French higher education system. Although my final comments will urge that the myth be at least introduced, hoping that the reality will follow, I must give a fair description of the French approach to fund allocation. First it may be useful to outline the consequences of the fact that universities are nonprofit organizations.

I. Universities and the higher education system as a whole are a set of nonprofit organizations. From this axiom follow seven characteristics to keep in mind.

The first is that the university is a sector of activity which does not sell its output other than part of its applied research and adult recurrent education. The corollary is that the consumer does not buy the services he receives.

The second characteristic is that the university therefore strongly relies for the bulk of its resources–funds, physical facilities, human resources–on state authorities.

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[1] *Le Financement des Universités, Rapport de la Commission Chargée de Proposer une Meilleure Repartition des Credits de l'Etat,* La Documentation Française, 1976.

[2] "L'Application de la Théorie des Organisations aux Universités," *Revue Economique,* March 1976.

The third characteristic is centered on the fact that the main reason why universities are classified as nonprofit organizations is that the market is not sufficiently and consistently informed on the quality of its output to accurately determine its value.[3]

Fourth, in the present state of our knowledge in the field of arts and sciences, public authorities are no more able than the market to tell the exact value of the output of the university and to act as a perfect market substitute.

Fifth, it follows that public authorities are mostly induced to use uniform and overly simple criteria for allocating resources. These criteria are, at least in France, input-oriented; they are centered on the number of students enrolled, square meters of buildings, teaching staff, and so on.

Sixth, in the budgetary bargaining which every year occupies the presidents of the universities and the Ministry of Higher Education, neither the faculty nor the universities are impelled to show how efficient and how innovative they are.

And seventh, the probability of a waste of resources is all the more important because, as Adam Smith stated in the *Wealth of Nations,* every human being (and members of faculties are also human beings) is motivated by the urge for self-satisfaction. This pessimistic view can, however, be somewhat mitigated by the role of that hidden force, professional ethics. But in countries where trade unionism in the faculty is subject to ideological contest and vested corporate interests, I fear that the residual professional ethics become too weak to operate as a counterweight.

So, we must end this set of preliminary remarks by assuming that universities, as nonprofit organizations and perhaps more than big corporations, still spurred by a residual competition, breed what the Americans call a slack,[4] that is to say, are able to allocate resources to discretionary purposes. Whenever the State tries to reduce this slack, for example, to urge economies or stimulate innovations and productivity, this action remains ineffective because the criteria remain input-, not output-oriented. The system of inducements and penalties is either nonexistent or weak. When, for example, a part of the teaching staff is on strike, the president of a university in France is unable to reduce their salaries proportionately because no striker will admit to being on strike. When one expresses surprise at this fact in a session of the university board, one is charged with ignorance and disloyalty–ignorance because the nonstrikers are benefitting from the strike;[5] disloyalty because any reduction of strikers' salaries would be considered iniquitous and information on who is striking can only be collected by a system of state control, and this is flatly rejected.

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[3] On this principle see K. J. Arrow: "Les Limites de l'Organisation," 1976. See also Bélanger: "L'université organisation non lucrative," Université de Laval, Canada.

[4] Richard M. Cyert and J. G. March, *A Behavioral Theory of the Firm,* New York: Prentice Hall, 1963.

How, then, is the general principle that universities are non-profit organizations applied in France? I will describe the set of criteria used in France for allocating resources, 1972-1975, because before 1972 the process was very obscure. I will also then describe the new transitional system used last year which probably will be used this year.

II. The French case, 1972-1975. When we talk of allocating resources in an industrial corporation, we mean human resources and task structures, technical equipment and plants, building facilities, tools, land, and financial resources. Indeed, capital equipment and human resources are in a corporation less fluid than money, but, on the whole, the allocating process assumes a minimum mobility: minimum functional fluidity, and minimum geographical mobility in the plant structure[6]. However in the case of higher education systems, at least in France, the public authorities do not even know the amount of capital allocated to universities, nor the exact cost of annual depreciation. Even if the public authorities knew what those costs were, the tenure system and patterns of professional life greatly hinder the geographical mobility of teaching staff. Also, technical and psychological considerations limit a person's capacity to change his specialty during his working life.

France has no explicit, rational policy for allocating capital and teaching staff. We rely only on retirements and the recruitment of replacements. When a professor retires, his colleagues in his discipline claim their right to replace him with a new colleague, rather than having the position allocated to another discipline. The main instrument for affecting the universities thus consists of those public funds annually allocated to the universities for operating expenses and research. This involves about 18.5% of the overall higher education budget, including equipment and the salaries of teaching staff. In 1975 this share was about 1 billion francs ($210 million) out of a total of 8 billion francs ($1.7 billion).

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[5] This point could be contested whenever ideological issues are at stake instead of economic demands.

[6] See for example A. Bienaymé, *La Croissance des Enterprises*, 2 volumes, Ed. Bordas, 1972, 1973.

Before 1975-76, these flexible funds for operating expenses were divided into two parts, roughly 50-50. One part was allocated to each university in proportion to its size, based on the number of square meters of buildings and grounds, and at a rate in 1974 of about $10.00 per square meter. This criterion was maintained last year, but the rate was increased slightly on political grounds. The other half of the funds was sub-divided into two headings. The first item was a general subsidy allocated per student at the rate of about $28.00 per student in Paris and about $23.00 for those in the provinces. The second heading, also based on student numbers, involved a set of coefficients for the different disciplines, ranging from 1 for law to 15 for the "hard" sciences.

Attacks on this simplistic system prompted the establishment of the committee, mentioned earlier, which I chaired. The committee summarized the criticisms of the old funding in its report, stating that although the criteria were clear, they were based on a profound ignorance of real operating costs. In the committee's view, the student numbers criterion was inadequate because it induced a wasteful competition in enrollments. Also, the fixed ratio of per student subsidies failed to take into account the fact that there is a discontinuity in the growth function of total costs because when the number of students increases, the additional students do not necessarily increase the number of seminars needed. Thus, it is not appropriate from an economic point of view to rely on the student numbers criterion for allocating funds.

The span of coefficients was considered as too wide from one discipline to another and a deterrent to multidisciplinary innovations. Other criticisms were that Paris was thought to be unduly favored, that the proportion of funds allocated on the basis of square meters of space covered only two-thirds of actual fixed costs, and that the system failed to encourage better methods of management.

Last, but not least, the committee felt that the fund allocation system was not in conformity with the Law of 1968. Article 27 of this law states that resources should be allocated to the universities "in view of the programs and according to national criteria." This formula excludes criteria according to which funds are allocated to each geographic region on a purely demographic basis. Criteria so far used were primarily output-oriented rather than based on programs or on national criteria by which they might be evaluated, as implied by Article 27 of the 1968 Law.

The difficulty is that still in 1976 the State is ignorant of the real content of programs, although in 1975 it urged the universities to construct five year plans (and within two months!). These were then discussed half a day per university with the senior government official responsible for the fund allocating process. Little analysis was devoted to the problem of criteria. However, even though some short-term recommendations proposed by the committee have now been applied, I hope that its medium and long-term recommendations will be seriously implemented. Meanwhile, on the basis of a sample costs study, the ministry has chosen to reform the allocation system in a different way.

III. The French case, 1975-1976. Every university president, that is to say almost 80, was interviewed by the ministry official in connection with the request for five year plans mentioned above, and his plan was hastily appraised. Such meetings were considered necessary because autonomy has created a great need to centralize information. However, the exercise was deceptive in that notwithstanding the emphasis in principle on innovation, the ministry only allocated 5% of funds for operating expenses to promote specific undertakings, and these were mainly to meet the major deficits of certain universities, as at the University of Vincennes.

The student number criterion was managed in a different way. The method tried was intended to reflect the fact that the universities have been divided and subdivided into a series of homogeneous subsets. The criteria used for splitting the whole system were the following. Multidisciplinary, bidisciplinary, and single discipline universities were categorized separately. Within these categories, the universities were classified in terms of size: under 3,000 students, between 3,000 and 10,000, and more than 10,000. Finally, the subsets were again subdivided on the basis of disciplines: law and economics, hard sciences, medicine, fine arts and human sciences, pharmacy, and so on. Having thus isolated homogeneous clusters of universities, the ministry then calculated for each university the teaching staff ratio per student. The same was done for the administration/staff ratio. In each family of universities, a frequent distribution of the ratios was calculated, and the modal rate was chosen as the theoretical ratio for the relevant category. Applying the ratio to the actual number of students in the corresponding category (in 1974-75), one obtains a number of units of account. After adding up all the units of account for each category, a grand total of units of account is obtained. All the funds to be allocated were then divided by the total number of units of account to determine the allocation of funds for the range of categories and per unit of account. In 1975-76 this came to $981.

The rationale of this method lies in the fact that the major part of operating expenses have been found to be fixed costs. They are less dependent on student enrollments than on the effective number of faculties, both senior and junior. Obviously the system has evened up some undue previous inequalities. It has been rather favorable to the provincial universities to the detriment of those in Paris. Two corrections have been already instituted to mitigate the effects of this evening-up process. The first is called in France the "règle du butoir," that is to say the "buffer stop" rule; it stipulates that every university has a right to receive each year at least the same subsidy as in the preceding year, unless it experiences a sharp decline in its enrollment. The buffer stop is a less conservative rule than it might seem. It is current policy. Thanks to inflation, for once, with an inflation rate of 10% it is possible to shift allocations by hidden ways. It is interesting to note that 7 Paris universities out of 13 and 2 provincial universities were thus protected by this buffer stop rule.

The second correction applied was that 5% of the total funds were reserved for specific undertakings by the ministry. These sums were allocated on political more than scientific grounds and helped to alleviate the deficits of some universities. Next year, and that is to say in '76-77, the same system probably will be applied, but the procedure by which the ministry interviews each president every year is considered already as both too intensive and too superficial to be continued. Instead, every year, a three-day visit on the spot should be organized by the ministry official to a certain proportion of universities. Although this would be a good procedure, it has not yet been adopted. The mechanical criteria described need also to be refined. For example, the clusters of disciplines are still too rough because they correspond to the pre-1968 faculty divisions. This system is also inadequate in the sense that operating funds do not actually grow linearly with the number of students enrolled: the cost of an incremental student is not the same, if he is, for example, the 30th or the 31st in a university where like Dauphine the entire teaching activity is organized by seminars of 30 students. These criteria will be revised so as to take into account seminar modules instead of individual students in the future.

Let us now end with the following concluding remarks. The new system is an improvement. Equity and realism are its main merits. The new procedure for allocating funds has obliged every partner to become more aware of its constraints. This has given much new information to the ministry on how the autonomous "black boxes" within universities operate. But we are far from an optimal solution.

The criteria are still based on input considerations only[7] at a time when a growing proportion of the annual budget should be devoted to improving management, pedagogy, and the quality of research. Special awards or recognition should be accorded for the quality of programs offered and delivered, the quality of scientific publications and the number of Ph.D. theses produced, the rate of success in national competitions, the number of scientific awards given to teaching staff, and so on. A problem in France is that these kinds of recognition involve political and ideological factors and competition. In France the higher education system is not yet seen as a coherent system, both complementary and competitive (complementarity and competition imply at least a common share of values). However, some byroads could hopefully be found to advise the ministry on the quality of teaching and research activities at the universities. If a solution like the University Grants Committee is not now appropriate in France, it is interesting to note that for the first time this year a private "hit parade" of universities was published by magazines like *Le Monde de l'Education*.

The methods are still very superficial and in embryo, but I recommend the setting up of a scientific advisory committee in which perhaps some foreign teaching staff and researchers might be nominated. It ought to have the following mission: to carefully study and assess the programs and their real implementation. The committee should give its advice publicly. This advice should not bear directly upon funds allocation, but only provide a public critique of the respective qualities of each university. Its criteria should be based on a prospective and planning view of society and be left to public appraisal.

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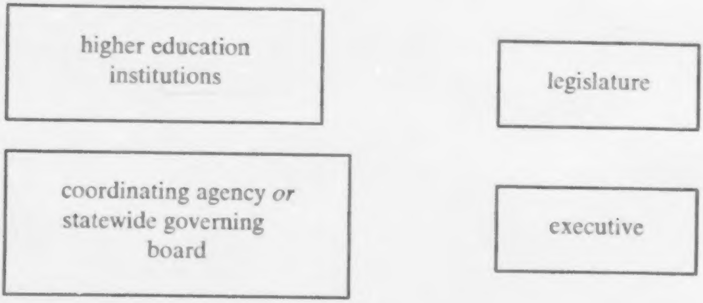
[7] Indeed, the teaching-staff ratio device gives an overview of the system, and fund allocation is largely predetermined by the present staff structure situation.

In our societies, which are more reluctant today than ten years ago to devote a growing part of the GNP to finance the Higher Education budget, an effort should be made to rationalize fund allocating procedures and criteria. The output assessment should be combined with the input-constraint appraisal. New methodological tools are required in this particular field of the performance of nonprofit organizations.

ALLOCATION OF RESOURCES TO HIGHER EDUCATION IN THE UNITED STATES

Lyman Glenny

Political influence in the allocation of resources to higher education, an issue confronted in France, Germany, Italy and elsewhere, is also a major issue in the various states of the United States. The structure shown in the diagram below depicts the possible links in political relationships between the various agencies involved in the total process of allocating resources to public higher education in this country. However, the amount, intensity and quality of information and data passing among them differ substantially from one state to another.


higher education institutions
legislature
coordinating agency *or* statewide governing board
executive

Particularly puzzling to foreigners is the vast difference among the states in this country in the organizational arrangements between state governments and their colleges and universities. All 50 states have a governor and legislature, but that is about the broadest generalization one can make. Our differences are almost as great as the range of differences among the 11 countries represented in this seminar in terms of actual practice in the budgeting process.

The higher education institutions generally prepare their own budgets following instructions issued by the governor's budget office. These offices have professional staff numbering from 5 or 10 in the smallest of the states to 150 or 200 in the larger states. Some of these instructions will contain formulas on staff-student ratios and the like; they will indicate the kinds of data to be furnished in the budget. This is important because most of the numerous state agency budget reviews that occur use only the data submitted in the budget and not data that are collected separately for other purposes or for operations.

Normally the budgets go first to the higher education agency in the state, and there are a great many varieties here also. In 29 states a coordinating board stands between the universities and colleges and their governing boards, and the state government. It reports both to the governor and to the legislature and also gives advice and recommendations to the institutions. It is an in-between kind of agency, between the institutions and the two branches of government. As its functions are mainly to review and coordinate, the system is characterized by considerable decentralization. The personnel who staff the coordinating boards are considered to be state employees, and about 80% of them are hired away from the institution where they were typically in institutional administration or in the faculties.

Nineteen states have a single governing board for all of the public institutions in these states, although in a few cases the two-year community colleges do not fall under the single governing board but have a separate arrangement. The State University of New York, Wisconsin, and North Carolina are typical of the single board category, and act as if a single university exists when in fact it may involve many virtually independent institutions of a great variety whose presidents report to a super president or chancellor. This contrasts with the coordinating boards discussed earlier which have no direct control over the government of the institutions.

Budget Review

The budgets prepared by the various campuses or institutions come to the higher education agencies of both types and are reviewed in great detail. A formula or a series of formulas may account for up to about 80% of the base of the budget. Even so, all the data in relation to those formulas are validated and checked and rechecked and the computations are corrected at times, so the agency review process may take as long as three months. Most of the coordinating agencies conduct reviews not only with data in the budget documents themselves, but also with a wide variety of operational data which they collect, computerize, and use in the review process.

After this review the budget goes directly to the executive branch where it is again reviewed in great detail. However, the executive branch pays a great deal of attention to the recommendations of the higher education agency. In our studies we found that at least 70% of the concern of the governor's budget office is with the recommendations by this agency rather than with the recommendations of the institutions.

If the executive office has insufficient information about some subject or program at an institution, it will go back through the higher education agency to the institution to obtain information or it may go directly to the institution. However, while there is a moderate amount of information gathering by this political office directly from the institutions, very few visits to the institutions, such as those of the University Grants Committee in Britain, occur in this country.

Once the executive budget is complete and submitted to the legislature, it is the document around which all debate in the legislature takes place. Moreover, in this country, the budgets contain a great deal of substantive legislation, in contrast to the federal level, that is, they set a great many policies that one would think would be set with independent laws generated through specialized committees or commissions. State governments in setting policy normally do so through the budget. About 38 states have annual sessions, that is, a budget is approved every year. A dozen states have two-year budgets, but their number is dropping very rapidly. The tendency is toward a one-year budget.

Role of Legislature

The executive budget is sent from the governor's office to the legislature and contains the recommendations of the governor. It may contain the initial requests of the institutions and it may also contain the recommendations of the higher education agency. In some cases, however, it contains practically nothing except a line item for each agency and an amount of money, without any justification or supporting narrative to argue for the budget requested. That argumentation takes place in hearings and questions and in relationships between the legislative staffs and the executive staff, and those representing higher education.

Except for the state of Nebraska, which is unicameral, all the state legislatures have two houses, with the upper house usually being much smaller than the lower house. For some 30 years and up to the present time, the two houses have formed a joint committee which reviews the executive budget. In the last 15 to 20 years this practice has gradually given way to separate review by the two houses so that the appropriations committee of each house and their staffs each review the budget, but usually only in part and not *in toto*. They tend to look at selected, highly salient political issues, such as an increase in tuition, or the construction of a new medical school, or which institution should get a new engineering complex with nuclear reactors. They scrutinize the very expensive programs and ones that arouse attention.

To summarize the process, an institution suggests its budget according to rules and regulations and a series of instructions that come to it from the coordinating agency and executive branch, and the institutional budget has at least one full review usually by the coordinating agency, but at the legislative stage there are two or more partial reviews. Thus, even though a document might be composed primarily of dollar requests generated by formulas, because of the many different political reviews, political intrusion is possible throughout the whole process, regardless of what the formulas mandate. Indeed in some states, the legislature or the executive may say, "We will only fund 90% of the formula this year, because we lack the income." A characteristic of our state governments is that most of them may not incur debt for any operational purposes (they can for the construction of capital facilities). They therefore must have a balanced budget which means adjusting the budgets of all agencies on the basis of estimated revenues—the higher education budget along with those for welfare and other public services. If estimated revenue is 10% less than projected expenditures, the state government is likely to require an across-the-board 10% reduction of all government agencies including higher education and so of the various budgets of the institutions. However, the more sophisticated and advanced agencies, for example Ernest Boyer's (State University of New York), would implement these reductions or changes very selectively by program, with a series of priorities for program survival or growth, and some for extinction.

Planning

What is the connection between the budget process I have outlined and planning? To me, plans are beneficial primarily to determine and publicize objectives, goals and values for higher education. If in a continuous planning mode, one forever keeps goals in mind and before the public eye as represented by government so that it understands the priorities. Some specifics should be in plans, but plans ought to be quite general. Plans all too often tend to be sporadic. Although some states have a periodic requirement that planning be done every three, five or seven years, most planning occurs when some big emergency happens or when vast changes in the matrix of the societal pressures on the colleges and universities result in a public decision to have another look at the whole of the higher education system. A commission is established or else some higher education agency and its staff begin the planning process, which may last for several years. Eventually they produce a plan.

I do not approve of such periodic plans; they are not apt to be good, nor is much attention paid to them.

One can safely say that the executive office and the legislative office rarely are aware of any extant plan, or if they are, they assume that the coordinating agency which reviewed the budget and either prepared or knew of the plan has taken into consideration its priorities and values. Hence they assume little need for concern about matching programs or changes of direction in education with a master plan. That supposedly has already occurred.

It should be noted that coordinating agencies have a program review function extremely important to the planning process. Typically no new programs go into effect in any of the institutions without the approval of this agency. And increasingly during the major depression of the last few years, these agencies have insisted upon institutions reporting to them their lowest priority programs as well as their high priority ones, and if an institution requests a new program it informs the agency of the programs to be discontinued as a direct offset.

There has been considerable pressure in this direction in the last two years. If we return to normal financing, that pressure may diminish, but demographic projections in the U.S. indicate that higher education is going to be on a level or downward trend during the 1980s and into the middle of the 1990s. Furthermore, the people who could replace the 18- to 22-year olds in college, namely, the adult population, are the ones that are well enough off financially and well enough educated to pay their own way. Hence one of the quickest and biggest budget cuts in the recent recession was the discontinuance of state funding for adult and continuing education. That was one of the first things that the governors thought to cut because of the clear correlation between income and education and the demand for continuing education. Those seeking continuing education can pay for it.

The program review function facilitates special scrutiny of new programs. While budget formulas may generate 50 to 70 and even up to 80% of the total budget, the remainder of the operations budget is made up of requests for new programs or major changes in existing ones, new or different items that are seldom buried in the budget. There are a few states where major changes are unidentified, but that is a rarity. Incremental changes above the basic budget are almost always identified, becoming the real base for the reviews conducted by the political branches. If the base budget is by formula, it remains pretty static from one year to the next with changes rarely made in the formulas. However, this is balanced off by the fact that proposed changes by the institutions are subjected to intensive scrutiny, whatever the direction that change may take, but particularly if funds are requested for new programs.

Base Budgets

A word about the formulas used in determining base budgets for higher education. Three different means are used, and these cover 90% of the cases. One is the simple student-faculty ratio; this is frequently a student-faculty ratio by discipline, or by clusters of disciplines, where it is thought that the costs are roughly the same. The more popular method or base is that of using the student credit hour or student contact hour, i.e., counting one credit for each one of the hours that the student is in a class with a professor. Thus, if a student is in class for three hours with the professor of economics and there are 20 students in a class, that professor is generating 60 student credit hours (three hours times 20 students is 60). A second means is the differentiated student credit hour for which separate base numbers are used for faculty who teach in the first two years of college, in the junior-senior years, and in graduate level education.

The third and most recently developed basis for a formula involves unit costs. The operating costs of departments and companies are combined to provide a unit cost per student credit or contact hour. Unit costs are taken from normative data, using data definitions and procedures developed by the National Center for Management Systems at Boulder and widely accepted in the country. The Center also has a program classification structure which lists some 30 different programs in which various disciplines are clustered presumably according to their having similar unit costs. Unit-cost studies are expensive, and often involve annual data gathering. Unit costs more and more become the basis for budget formulas.

The unit-cost formula got underway in the 1950s with a Ford Foundation grant to the Big Ten universities and the University of California. When in 1962 we started the coordinating agency in Illinois, we used the basic unit-cost system developed ten years earlier by this Ford project, modified it for state level instead of institutional operational purposes, and determined unit costs for each four-year and graduate institution. To arrive at unit costs, the dollars allocated for expenditure for operations by a given discipline and level of study are divided by the number of student credit hours produced within the discipline. To these credit hours co[illegible] by level are added the discipline's share of overheads (libraries, central administration, maintenance of buildings and grounds) based on the proportion that the particular discipline has of the total budget of the institution. By this kind of aggregation one arrives at a unit-cost figure that covers all the costs of the institution, except for new and different programs. In most states an inflation factor is also calculated and added to the formula.

This factor varies for different geographical regions because of the differing rates of inflation among them.

With the increased emphasis on unit costs, the new state "technocrats" now play an increasing role in decisions on the financing of higher education. Competition and rivalry between the "unit-cost boys" among the professional staffs of the legislative and executive is increasingly keen. At the same time, crucial budget decisions commonly hinge not on issues of unit costs but on political considerations—what state legislators think "will fly at home." While unit-cost formulas are necessarily producing more centralization in higher education planning and management and may be substituting new rigidities for old, political forces and entrepreneurial initiatives may have no less scope—and perhaps more—than in the pre-unit cost era when it was often more difficult to move higher education systems in new directions because one could not easily get a handle on the system.

INTERNATIONAL COMPARATIVE STUDIES—THE STATE OF THE ART ILLUSTRATED BY IEA SURVEY

Torsten Husén

In the Foreword to an ICED Occasional Paper (Cerych and McGurn, 1974),* James A. Perkins raised the question common to everyone involved in comparative studies of education: "What can we really learn from the experience in other countries?" In the 19th century Europe a new discipline referred to in Germany as *Auslandspädagogik* emerged. It was then inspired by very pragmatic needs in countries that had built up colonial empires, such as Britain and France. In administering these empires they encountered educational problems different from those at home. This applied particularly to Britain. The main rationale for beginning to collect information and to teach courses in *Auslandspädagogik* was, however, not to learn from nations in Africa or Asia but to find out how the educational models of the home countries whose superiority and high qualities were beyond any doubt could be employed abroad.

Comparative education has only recently developed its proper conceptual framework and methodology. One can in this context refer to Bereday (1964) and Noah and Eckstein (1969). As a matter of fact, a strong impetus for a coherent and rigorous discipline of comparative education came in the 1950s and 1960s when various international bodies, such as Unesco, Council of Europe, and OECD, began to launch international programs in education.

As Anderson (1961) has pointed out, comparative studies in education can be confined either to the educational subsystems as such, as if they were autonomous, or can relate the educational phenomena studied to society at large. Self-evidently, an educational system does not operate in a historic and/or sociocultural vacuum. If we want to understand various national or regional systems of education we must study the historic, social, economic and other factors that have shaped them. In an attempt to analyze how research has become institutionalized in various countries, Germany, France, Russia and the United States for instance, certain pivotal historical as well as social circumstances have to be taken into account (Husén, in press).

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* References are listed at the end of the article.

Methodologically three stages in the development of comparative studies in education have been distinguished:

(1) The first stage is characterized by a mere description of various educational systems or parts of them.

(2) The second stage consists of attempts to analyze historically and socially how each of the educational systems has developed and to identify factors which have been instrumental in the development of the various systems.

(3) The third, and more sophisticated, stage is represented by attempts to juxtapose the outcomes of the stage 2 analyses and to arrive at conclusions that could claim general validity.

When we say that the purpose of the exercise of comparing educational systems is to learn from other countries, we are faced with certain tough methodological problems, which I shall only hint at here. For instance, what kinds of countries should be studied in order to enrich our knowledge and perspective with regard to the country or countries intended to gain new insights from such a study? It would seem rather self-evident that comparative studies relevant to highly industrialized countries should be confined to other industrialized countries. But we then forget the historic dimension. I submit, and actual studies support this, that the best way to arrive at an understanding of the forces behind alphabetization in the Third World is to study how it was brought about in Western Europe and the United States in the 18th and 19th centuries. Such a perspective would have helped us to avoid the spectacular mistakes of the last 25 years committed by international technical assistance agencies and others in the developing countries.

But the most thorny methodological problems are those associated with data collection. We cannot be satisfied with impressionistic data and a general "gut" feeling of how things are. A social science approach complementary to the historic one has to rely on facts that in one way or another can be quantified. Such data are hard to collect. National statistics are often either faulty or even faked. In many cases time-series statistics that would allow a study of the development of selected aspects of the educational systems do not exist. Students and teachers vary between countries in how seasoned they are in providing information by means of questionnaires and interviews.

IEA-Project Approach

As an illustrative example I shall try to present briefly an international research endeavor in which I have closely been involved over more than ten years as a coordinator and researcher. It is a comparative survey of student achievements and their determinants in some 20 countries conducted by the International Association for the Evaluation of Educational Achievements (known as IEA). The survey goes under the name of the IEA-project. It is a comprehensive attempt to quantify student competence in certain subject areas as well as various social, economic and pedagogical input factors into the educational systems.

The IEA-project employed the third methodological strategy mentioned above, the juxtaposition of systems and subsequent attempts to arrive at generalizations. The national systems of education were studies according to a strictly uniform methodology. The relationships between inputs and outcomes in each country were then analyzed. Thus, the same procedure was replicated in all the 20 countries and at three different levels of the system. Instead of referring to this as cross-national comparisons it would be more appropriate to talk about multinational comparisons. Apparently, the more frequently a certain relationship, say between teacher competence and student competence, can be established, the higher the likelihood that it holds true in other countries not included in the study.

The IEA-project has internationally been reported in 11 volumes, published in 4 installments. The mathematics study was reported in 1967 (Husén, I-II, 1967). After the completion of this venture, IEA embarked upon what it refers to as the Six-Subject Survey, which was conducted in 1967 through 1973 and reported in Comber and Keeves (1973), Purves (1973), and Thorndike (1973) presenting the results in Science, Literature, and Reading Comprehension respectively. The surveys of English as a foreign language and French as a foreign language were published in 1975 (Lewis and Massad, 1975, and Carroll, 1975). In 1976 comprehensive case studies of the participating countries were presented by Passow, Noah and Eckstein (1976). In the same year the Civic Education survey, perhaps the most difficult of them all, was presented (Torney, Oppenheim and Farnen, 1976). Finally, also in 1976, IEA turned out a volume written by David Walker (1976) which gives an overall picture of the entire project.

It would not be feasible within the confines of this paper to present a faceted picture of how this massive international venture was launched—let alone its major findings. I shall here confine myself to mentioning what countries, what stages in the educational systems, and what instruments were used to provide us with the data we needed. I shall also say something about the machinery established to run the survey and mention some findings with far-reaching policy implications.

Six-Subject Survey

Briefly, the following countries were participating: Australia, Belgium (Flemish-speaking and French-speaking), Chile, England, the Federal Republic of Germany, Finland, France, Hungary, India (Hindi-speaking states), Iran, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Rumania, Scotland, Sweden, Thailand, and the United States. Every country did not participate in the survey of all subject areas and at all three levels of the educational system. The subject areas were Science, Reading, Literature, English and French as foreign languages, and Civic Education. The target populations were 10-year-olds (Population I), 14-year-olds (Population II), and students in the pre-university grade of secondary school aged 17-19 (Population IV). Those who were about to complete mandatory schooling (most of them at the age of 15-16) made up Population III, which was optional and investigated only in a few countries.

The development of achievement tests in the six areas was a research endeavor in its own right that took about three years to complete and was conducted by international committees cooperating with national committees in each subject. The result was a set of international examinations of great value, for instance, to those who want to assess the competence achieved by upper secondary school leavers.

In order to collect relevant information on a student home background, teaching practices, and school resources, questionnaires were administered to students, teachers, and school principals. In all some 500-600 input factors were measured. A student home background index was developed on the basis of father's and mother's education, father's occupation, number of books at home, and number of siblings at home. The Six-Subject Survey included some 250,000 students, 50,000 teachers, and 9,500 schools. Finally, we also developed a series of inventories by means of which we arrived at scales measuring school attitudes, school motivation and attitudes toward specific subject areas.

Findings Illustrating the Utility of the Comparative Approach

One of the most striking findings is the tremendous variability both within (something we already are aware of) and between countries (something we have not been aware of simply because of lack of empirical evidence). National means tend to fall into two clusters, one consisting of developed and one of developing countries. The variability between the highly industrialized countries is remarkably small. The same applies to the four developing countries. By and large the top 5-10 percent in the developing countries perform at the level of the average student in Europe or the United States.

The between-school variability differed widely from one country to another. The variance between school means at the 14-year-old level was some 10% of that between students in Sweden, 20-25% in England and the United States but almost 80% in India. This implies concretely that if two Swedish schools are picked at random, the likelihood is high that the distributions of student achievements very closely overlap, whereas in India there is a high likelihood that the two distributions would have no overlap at all, that is to say that the worst student in school A would be better than the best student in school B.

Regional differences, of which one was cognizant in the respective countries, were highlighted by the IEA findings. Thus the big gap not only in student performance but in school resources as well between northern and southern Italy was brought into focus and made headlines in Italian newspapers. The then Minister of Education, Malfatti told me that we had administered an "electrical shock" to the Italians when bringing these facts out.

The next question then became: how do we account for these variations between countries, regions, schools, and students? The technique employed by IEA in explaining between-student, between-school, and between-country differences was that of stepwise multiple regression analysis, a method used by James Coleman in his U.S. Office of Education study of equality of educational opportunity for the U.S. Federal Government (Coleman *et al*, 1966). The most powerful cluster of factors are those associated with social background. All the school factors combined did not account for more of the between-student differences than the home background factors. This applied with particular force to a subject area such as reading, which explains the enormous gap in mean reading scores between developed and developing countries. If parental education and the verbal culture at home defined by availability of reading materials, such as newspapers, magazines and books were taken into account, we could explain the major portion of the gap between developed and less developed countries.

Sex differences in scholastic achievements as well as attitudes cannot successfully be studied unless it is done on a multinational basis. Otherwise one cannot test hypotheses related to cultural differences. The uniformity within countries is too pronounced to allow us to arrive at findings on sex differences that can be generalized to other cultures or countries.

By comparing the standards achieved by the terminal secondary school students, effects of the structure of the school system can be assessed. In order to make such comparisons meaningful, we had to consider equal proportions of the relevant age groups. It would, for instance, have been pointless to compare all the high school seniors of the United States (making up about 75% of the 17-18-year-olds) with the 10-20% of that age group sitting for *baccalaureat, abitur,* or equivalent in Europe. Comparisons between equal proportions of the age groups tell us that the top 5 or 10% of students in the industrialized countries reach pretty much the same levels of performance. Thus, in terms of the standard of comparable elites, more does not necessarily mean worse. In addition, we find that the more comprehensive the secondary school the more balanced the social composition of the enrollment in the terminal classes. Furthermore, the earlier selection takes place for academic programs or tracks, the more pronounced the social bias in the system.

An important by-product of the IEA exercise has been that international matriculation examinations in key subject areas have been devised. This is no doubt of great importance at a time when the number of foreign students at universities and colleges in North America and Europe has reached almost the half-million mark. The IEA evaluation instruments could be used for two purposes:

(1) to provide internationally valid norms of achievement;

(2) as formulae to facilitate college admissions procedures and decisions on allocating foreign applicants to adequate courses, including remedial ones.

New Survey Proposed

Finally, I would like to suggest another international survey which could draw upon the administrative and methodological experiences gained in multinational evaluation of student competence and its determinants of primary and secondary school outcomes. At a time of increasing student mobility between countries, an international evaluation of undergraduates during their third and/or fourth year of study could serve the following major purposes:

(1) It could provide information for mapping out the competence achieved in various types of countries in key areas, such as mathematics, critical reading, literature, and science.

(2) It could give us a picture of how achieved competence is related to various input factors that would have to be identified and measured in the survey, such as amount of instruction, teacher competence, home background, and quality of secondary school preparation.

Such a survey would be particularly profitable if it included three or four industrialized countries in the northern hemisphere and an equal number of developing countries, one from Asia, Africa, and South America.

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COORDINATING AGENCIES: A NECESSARY EVIL OR ADMINISTRATIVE PROGRESS?

Hans Leussink

Do coordinating agencies represent a necessary evil or administrative progress? My short answer is: of course these agencies are necessary, or at least some of them are. There can be no fundamental opposition to some kind of coordination. But, of course they are also an evil, especially for those of us lucky enough to have had personal knowledge and experience with the previous state of affairs. However, coordination does involve administrative progress, particularly to the professional administrators and for the sake of administration.

Higher education coordination should be developed cautiously. Certain aspects of space science may illustrate this. To be specific, the first section of the Space Shuttle and the Space Lab is clearly a highly complex and delicate system. Its design and control are dictated by or dependent upon well-known laws and relationships in the field of natural science (physics, chemistry, and biology). The human factor has only a modest role in that system. It is a well-defined project, neither very large nor very expensive. The basic data necessary to it are available from the earlier Apollo Program. However, when one considers the enormous amount of work involved on both sides of the Atlantic for this project in analysis and coordinating parallel efforts, one can imagine how much data and coordination must be involved in analyzing the much more complicated, larger and more expensive higher education systems we have to deal with.

More important is the fact that higher education as part of the overall social system has mainly to do with structures of human design and the influence of human beings on human beings. Nor do they—at least not very often—behave according to predictable, scientific laws. It is a moot point if the average human is motivated more by reason or by emotion, even by his animal heritage.

Acceptance of this dilemma, at least in principle, should make us very cautious in imposing plans and setting up coordinating agencies which by their nature have to be mechanical. It was this to which Henri Janne was probably referring in warning against technocracy and technocratization. And also Alain Bienaymé in his statement said "The application of the theory of organizations within the university admits that it is not desirable or even technically possible to subject it to structures, norms, ratio-types."

I will not dwell upon whether planning and coordinating agencies are necessary in higher education. Clearly they are. The real question is how to structure them so that the "evil" is minimized as much as possible. The answer of course is very very complex. Let me try a rather general one.

In systems analysis we know the importance of the so-called "critical path." It describes those points or the connections of those points in any scheme which are of critical importance for the whole. If they fail or turn out quite different from the assumptions, the whole construction is a failure and collapses. The same occurs in higher education systems if critical points have been overlooked due to a lack of information, an underestimation of historical influences and traditions and vested interests, or the shortsightedness of future projections.

Burton Clark has presented an impressive picture of "the state of the art" in comparative higher education. According to him we are functioning here in a prescientific, if not pre-prescientific domain. So the prospects for applying the tools of systems analysis are extremely dim. Moreover, I have serious reservations about the consequences of moving this field to a really scientific level and of the application of all the norms that would then be involved.

Germany's Experience

The consequences of shortsightedness and of not seeing even the most trivial critical points in the critical path were dramatically demonstrated in Germany in the last few years. We changed our secondary and tertiary educational systems from elite to mass, but did nothing to reform the conditions of recruitment to the professions and our professional structure at the upper levels. Consequently, we have continued high job expectations on the part of university graduates and the almost unsolvable *numerus clausus* problem in Germany. Considerations of this kind, I think, should sharpen the senses of the lawmakers, planners, and system constructors, who all too often take on the missionary approach of high priests or messiahs, without sufficient regard for the consequences, immediate and mediate, of innovations.

The quality of new systems for planning and coordinating higher education may well correlate negatively with the extent to which these delve into details. An example is the so-called capacity formula, developed in Germany, which defines how many students an academic department or other unit can accommodate, and which by now have become so complex as to be ridiculous. The lack of information about the basic facts of existing systems should engender an attitude of restraint and modesty toward changing existing systems or creating new ones. One should seek to regulate only the necessary few points of real importance and pay much more attention to the "critical path." In this connection we tried in Germany to implement such an approach in our 15 year Education Plan of 1973 in identifying those points in certain fields where if decisions were not made, catastrophe would eventually result. Implementing this was one of the contributions of Klaus von Dohnanyi.

These remarks are not to suggest that in my earlier involvements in higher education policies I developed a resigned and hopeless mood. For several years I was the chairman of a typical coordinating agency, the Wissenschaftsrat or Science Council, which represents the federal and state (11) governments on the one side, and the scientific community on the other side, e.g., the universities, the Max-Planck Society, the Deutsche Forschungsgemeinschaft, and the Academies of Science. For the Federal Government I also organized another intergovernmental coordinating agency, namely, the Bund-Länder Kommission für Bildungsplanung (the Federal-State Commission for Educational Planning). I thought then and still think that these two organizations are necessary evils which along with some others did much more good than harm for German higher education. I only regret that some of my successors in the Wissenschaftsrat did not resist the temptation of too much perfectionism in some of their undertakings.

Overall it is my conviction and experience that 90% of planning and coordinating efforts should be devoted to assembling basic data, evaluating them critically, and trying to identify the critical issues, including those likely to arise as a consequence of system reform. The remaining 10% should focus on designing innovations in such a way that they will be as flexible as possible. This latter is especially difficult in a legalistic country like Germany, where all new regulations are potentially subject to law suits in the courts.

I also wish to stress that the expectations aroused by new formulas and systems always should be moderate. This was cogently stated by Ernest Boyer, among others, in his discussion of myth and reality in which he pointed up so convincingly the complexity of higher education systems. Considering how important the human factor is and will be in systems management for the coming decades, we can at best aspire only to rather imperfect systems.

Appeal for Moderation

A few more points. It is relatively easier to introduce new systems, for example, coordinating agencies, when new developments in education and research emerge, because not many vested interests are then threatened or affected. The same seems true when circumstances permit the allocation of increased resources to higher education, although this in fact may be very questionable. It may well be that, on the contrary, situations of resource shortages help more in the introduction of new coordinating systems.

I have heard and myself commented much on the imperfection of coordination efforts. The results of systems reforms are often inadequate and all too frequently call for more change. This being so, I wonder if it is not wiser to limit change because each change automatically creates a loss of energy by friction. It depends, of course, on the specific situation. However, given that the degree of imperfection of the new arrangement will probably not be very much less than that of the preceding, and knowing by experience that not only can qualified, decent, and clever individuals or teams of such persons produce fairly good results with imperfect measurement, but that the reverse is also true, in principle I advocate a moderate sequence of reforms.

The paper outlining our study stated that its first purpose is "to learn how different countries deal with important features of educational planning and operations." To that I respond that if we could learn from the study not only how different the solutions for the same problem can be, but also a little about the facts and why the solutions are so different, this would be of enormous value.

The second purpose of the study is to learn from each other. For this I would roughly summarize the university systems of the world, at least of the so-called Western World, under the three headings of the Latin university, the middle-European and the Anglo-Saxon university. In this context I think that—after the middle-European system having had great influence for about 100 years, until the thirties—the system which has had the most influence over the last decades is the Anglo Saxon system, especially as developed in the United States. It has preserved more of the structure of the university of the Middle Ages than the others. Therefore, I think it of great importance for the study to stress the special conditions and circumstances in the environment of this system.

Let me close by summarizing very briefly my main points on higher education coordination as follows:

—The importance of having basic data cannot be underestimated.

—Try hard to detect the critical points in the critical path of a system.

—Regulate only the absolutely necessary items and then with maximum flexibility.

—Abstain from mechanical perfectionism.

—Be always aware of the often profound differences between myth and reality.

—Do not hasten in the initiation of reforms and the further changes these reforms may indicate.

ORGANIZATION FOR THE COORDINATION AND CONTROL OF SYSTEMS OF HIGHER EDUCATION

Edward F. Sheffield

When public financial support is given to institutions of higher education (IHEs) within a nation or state, the government has more than a benign interest in the system. So, to a greater or lesser extent, it exercises control over such expenditure. What form of organization it devises for this purpose will depend on a complex of factors, most of them indigenous, many of them historical. What I hope to do here is to suggest what are the principal alternatives open to governments in this situation, and the main issues to be considered.

I understand coordination and control of a system of higher education to comprise:

- Fiscal management—including estimating, budgeting, allocating operating funds, approving capital budgets, accounting, and auditing;
- Program management—such as approving, reviewing, rationalizing, and articulating; and
- Planning for the system—including the compilation of system data, analysis, the setting of goals, and evaluation.

It is not uncommon to think of forms of governmental organization for these activities in terms of bodies such as Britain's University Grants Committee and the statutory coordinating agencies for postsecondary education which are to be found in the majority of the United States. These are relevant and I propose to discuss them, but not until after drawing attention to aspects of coordination at the political or cabinet level and the level immediately below. I shall point also to the coordinating roles of voluntary collectivities of IHEs.

Coordination at the Political Level

At the political or cabinet level, the choice to be made is essentially that between assigning higher education to a ministry or department which has other responsibilities, usually for the other levels of education, *or* to a separate ministry or department of *higher* education, perhaps linked with scientific research. Examples of the former are to be found in Brazil and Japan, each of which has an overarching Ministry of Education; examples of the latter are the U.S.S.R. with its Ministry of Higher and Specialized Secondary Education, and the Canadian province of Manitoba which has a Department of Colleges and Universities Affairs.

In favor of an all-embracing ministry of education is the likelihood that the head of a large, comprehensive ministry or department will have more power in the government than the head of a small one; and also it is desirable, at the cabinet level at least, to treat all education as a single system. In favor of assigning higher education to a separate department, concerned exclusively or primarily with that realm, is the assurance that that part of the whole field of education would get special attention and not be swamped by school education. It might therefore be spared what Lord Robbins referred to as the "administrative style" of the school education bureaucracy.[1] (His arguments in favor of a separate ministry, though not successful in Britain, persuaded the government of the province of Ontario which in 1964 established a Department of University Affairs with its own minister.)

Coordination at the Level Below That of the Cabinet

Whether or not higher education has its own minister or member of cabinet concerned exclusively with that segment of the total field of education, a choice must be made between managing university and nonuniversity institutions as two (or more) separate subsystems, *or* as one comprehensive system of postsecondary education. Examples of the former are the so-called binary system of autonomous and public IHEs in Britain, and the subsystems of universities, and colleges of general and vocational education (CEGEPs), in the province of Quebec. The latter pattern is illustrated by the new comprehensive arrangement for higher education (*Högskola*) planned for implementation in Sweden in 1977.

If there is bifurcation it is likely to be reflected in the organization of the ministry or department responsible for higher education and from there on down the chain of command. Where intermediary bodies exist there tends to be one for each subsystem, but umbrella (U together with non-U) intermediary bodies are becoming more common, especially in the United States.

The chief argument in favor of a binary system is that U and non-U institutions tend to differ—historically, legally, and in terms of goals and programs. It may well be asked, therefore, whether they can be dealt with together. On the other hand, an integrated system has appeal if the object is to treat it as one, and to assure easy mobility from one part to another.

Coordination at the Administrative Level

We come now to what are usually referred to as coordinating agencies. It may be helpful to think of three principal organizational patterns among which choice may be made. They differ basically in accordance with the location of the advisory and executive functions performed:

Bureaucratic. When this form of organization is in effect, both advisory and executive functions are located in the bureaucracy of the responsible ministry or department. There is no intermediary body; administration is direct.

Advisory. In this instance, the *advisory* function is performed by an agency or agencies appointed for the purpose, while the *executive* function is retained by the bureaucracy.

Delegated Authority. In this model, some (more or less) of each of the advisory and executive functions are located in an agency with authority delegated by the government, the bureaucracy retaining, however, at least some responsibility for the executive function. The key power identifying a body as having delegated authority is the power to allocate government funds to the IHEs in the system.

A recent example of the bureaucratic model is to be found in the province of Alberta which, in 1973, gave up the Delegated Authority form (with a Universities Commission and a Colleges

Commission) in favor of centralized control within the government's Department of Advanced Education and Manpower, which assumed jurisdiction over both U and non-U institutions. The advisory pattern is to be found in many countries, e.g., Australia, with its advisory Australian Universities Commission concerned with the senior institutions, and its Commission on Advanced Education advising the government with respect to the other class of degree-conferring institutions, the colleges of advanced education. In this category, too, could be put the U.S. coordinating boards which have advisory functions only. (More than a dozen are in this group.)

The other two main types of coordinating agencies to be found in the United States, namely statewide governing boards (roughly a score) and state coordinating boards with some regulatory powers (about equal in number to those with advisory functions) could be said to belong to the delegated authority form of organization, although only half a dozen of them have more than review and advisory powers with respect to institutional budgets. So also does the University Grants Commission of India and the University Grants Committee of Britain. Legally, the British UGC is an advisory body, but it allocates grants to universities and gives them "guidance" with respect to development and expenditures. *De facto*, therefore, it exercises delegated authority, including the key power of resource allocation.

This choice among the bureaucratic, advisory and delegated authority models is, in principal, the same as is faced in many fields of government. Essentially, it is whether to deal with operations at arm's length; and, if so, how long the arm should be.

The bureaucratic form is characterized by what Burton Clark and Ted Youn call "complete governmental embrace."[2] It deals directly with operations in the field of higher education. Both the advisory and delegated authority forms of organization may operate as if with arms of varying length. In the case of the advisory model, no responsibility is forfeited by the government; it seeks advice but makes all the major decisions itself. In some examples of the delegated authority form, the government really does leave the task, and the responsibility, with its appointed agency. The government surrenders some of its sovereignty, although never for an indefinite period of time. There are instances, however, when it is extremely difficult to distinguish between an agency with delegated authority and a government department: they may behave in much the same way.

Arguments in favor of the bureaucratic model are that it provides for the possibility of close control, and more complete integration of the system, and it allows the legislators to have a greater sense that they are discharging their responsibility to the public. Sam Smith and Hugh Arnold suggest that it has the added advantage of providing for direct communication between IHEs and government:

> . . . we suggest that the most critical structural attribute of the government-university communication or interaction mechanism is the opportunity for direct, non-filtered communication. We baldly reject government-created-and-owned universities' council or commission mechanisms and propose instead provincial legislation that necessitates an annual contact between each university in a province and the appropriate agency of government.[3]

Arguments in favor of either the advisory or the delegated authority model, in preference to the bureaucratic, include these. If (as is often the case in a small jurisdiction) the bureaucracy were lacking in expertise, the government could create a specialized agency with expert staff and an especially appropriate form of organization. Or it might be that the advisory or delegated authority form would be chosen because of an awareness by the government of the need to draw on the views of the interested communities. Another reason might be the desire of government to shift, or seem to shift, responsibility to a nongovernmental body. The best reason would be belief (by government and the IHEs) in the desirability of protecting institutional autonomy from direct political and bureaucratic interference. Hence the notion of the "buffer."

The advisory pattern might be chosen over the bureaucratic or the delegated authority pattern because of the argument, which makes a good deal of sense, that it is the more appropriate for planning because it is not engaged in day-to-day administration.

The advisory model might be found to be preferable to that characterized by delegated authority in the case where the government wants to keep, not delegate, authority. An example is to be found in the province of Ontario where, in 1972, an ad hoc Commission on Post-Secondary Education recommended that the advisory Committee on University Affairs, which had been acting as the intermediary between the universities and the government for some years, should be replaced by a Council on University Affairs with considerable executive authority. The government chose not to accept that part of the recommendation which would have delegated executive power to the new Council.

Whatever the considerations and arguments in favor of one of the three models or some modification of one of them, the choice rests with the government, for it has the power. Its decision will be made on the basis of a mixture of administrative and political factors. These may favor an habitual governmental style, e.g., the use of national boards in Sweden, or the centralization of authority in France (where the new advisory bodies seem not to have diminished the Minister's key role). And it is not unusual for one model to be chosen for the university subsystem and another (probably closer to direct or bureaucratic control) for the non-U subsystem.

Writing in 1969, Henry Mayo felt that, whatever the choice, governmental control would increase:

> The conclusion seems to me to be inescapable. Governments will probe more and more into university affairs, before and after granting them money. It will not be long before legislatures or their committees will demand an accounting, and the university budgets will be publicly examined in some detail.
>
> Some may retort that the "buffer" scheme of a university grants committee may be considered as a possible protection for university "autonomy." But this is to rely on a hutch of straw to give protection from the hurricane. If the grants committee has had to give way to Parliamentary scrutiny in the United Kingdom, it is not likely to be resurrected and given new life in Canada. (This is not to say that it may not be tried. Old world superstitions have a habit of springing up in the new world.)[4]

Assuming, for the moment, that a government chooses either the advisory or the delegated authority form of organization, there are still many important questions to be considered. Here are some:

- Should the agency be established by statute *or* by administrative decision?
- What should be its functions and powers?
- Should it administer student aid? Research grants? Grants from authorities other than that to which it reports?
- Should it be concerned with public IHEs only? Or private IHEs as well?
- How should it be composed? Of laymen? Academics? Heads of IHEs? Civil servants? James Perkins, speaking of the membership of a coordinating agency, once made this perceptive observation: "To the extent that it is concerned with university autonomy, the coordinating body will be made up of academic personnel; to the extent that it leans to public authority, politicians and state officials will appear."[5]
- Staff—chairman or director and other professionals: Who should name them? Should the agency have its own secretariat *or* should it be served by a secretariat seconded from government?
- What should be the extent of openness? Should the agency's recommendations or interim decisions be published?

To illustrate how one political unit dealt with these questions and chose among the possible alternatives over a period of a decade, there follows in brief form the story of the development of coordination of postsecondary education in Canada's province of Alberta.

Progressive Centralization in Alberta: A Case History

In this record there is an entry for almost every year in the past ten. Prior to 1966, there was in the province one provincial university with two campuses, but with a single governing board. It was a monopoly. In addition, there were public and private junior colleges with their own governing bodies, and there were public technical and vocational training institutions which were administered directly by the provincial Department of Education.

In 1966, the one provincial university was divided into two (later a third and a fourth were created) and at the same time an intermediary body of the delegated authority type, the Alberta Universities Commission (composed of laymen), together with an advisory Universities Co-ordinating Council (composed of academics representing the universities), were established. A year later, a Provincial Board of Post-Secondary Education was formed in order to advise the government regarding the organization and coordination of nonuniversity institutions. After two years, it was replaced by an intermediary body much like that which had been established in 1966 for the universities. This was called the Alberta Colleges Commission and, like the Universities Commission, it was of the delegated authority pattern.

There was a change of government in 1971, and later in that year the provincial Department of Education was divided into two departments: a Department of Education continuing to be concerned with public elementary and secondary schooling, and a Department of Advanced Education which had jurisdiction over formal postsecondary, and also informal adult, education. In 1969 the previous government had launched an *ad hoc* inquiry into education at all levels by a Commission on Educational Planning. It reported in 1972, recommending that the Alberta Universities Commission and the Alberta Colleges Commission be taken over by the provincial Department of Advanced Education: "Continued maintenance of the Alberta Colleges Commission and the Alberta Universities Commission will only splinter and distort the efforts of the Department of Advanced Education. It is proposed, therefore, that the two commissions be dissolved and that their responsibilities and employees be taken over by the Department."[6]

Consistent with that recommendation, in 1973 the two commissions were dissolved and the coordination of higher education in Alberta was taken over by the government Department of Advanced Education. Not long after that, early in 1974, there was a series of lectures on "The Politics of Higher Education" sponsored by the University of Lethbridge. Walter Worth, Deputy Minister of the Department of Advanced Education, spoke in the series, on "From Autonomy to System: A Provincial Perspective." A few exceprts will reveal the thrust of his comments:

> The Department of Advanced Education is "the culmination of an evolutionary process since World War II in which we moved from an institutional through a subsystem to a system focus . . ."

> ". . . the pressure for change historically stems from the outside . . ."
>
> ". . . the opportunity for autonomy within higher education does not seem to produce new services or curricular change, despite its potential benefit for intellectual freedom of the faculty. Instead it seems to perpetuate ritualism and privilege."
>
> "Will the exercise of the province's authority encroach upon the autonomy of our four universities and six community colleges? The answer is perhaps. . . . There is no denying, however, that we are faced with the emergence of a new order of authority."
>
> ". . . it should be possible to achieve the benefits of both autonomy and system."[7]

In 1975, the government departments of Advanced Education and Manpower were merged. Also in that year the process of planning the integration of the system of higher education in the province reached the point where a draft consolidated "Adult Education Act" had been prepared. It was circulated widely for discussion. Persons associated with nonuniversity IHEs and a variety of other agencies and interest groups tended on the whole to be favorably inclined to the draft. However, reaction from the university community and from the press was generally negative, indeed in some instances fiercely negative, because it began to look to them as if system were to supersede autonomy. A new man succeeded to the role of Minister of Advanced Education and Manpower in 1975. With the endorsation of Cabinet, he withdrew the controversial draft Act, but Alberta still has the Bureaucratic model of coordination and control which it introduced in 1973.

Is this the direction in which most systems are likely to move? We have considered some of the organizational choices open to government at three levels of coordination, and offered one illustrative (though not representative) case history. Before mentioning some of the special problems faced by federal states and offering some comments on the evaluation of coordinating agencies and the adoption of foreign models, we must recognize the roles in coordination of voluntary associations within the higher education community.

Voluntary Collectivities

When power resides in the state and funds come from the state, the state establishes machinery for the exercise of its functions. When this is the situation for higher education, it frequently occurs to the affected groups that they would be wise to associate . . . to create a forum and to compile and share information; to cooperate in joint projects; to try to influence the public and the state agencies in their field to favor what *they* deem to be priorities, i.e., to lobby; or to undertake themselves some of the coordination they have reason to believe the state will initiate if they do not.

Types of voluntary collectivities include:

- *Associations, councils or committees of IHEs or their executive heads*, e.g., the West German Rectors' Conference in the Federal Republic of Germany, and the Council of Ontario Universities. Sometimes these are made official advisors or agents of government (could one say they are co-opted?), but the divided loyalty of institutional heads (first to their own institutions, second to the collectivity, third to the government) makes it difficult for them as a group to deal with hard decisions affecting institutional members (especially the larger ones). The most sophisticated of these collectivities have their own secretariat, including research staff, but the problem of divided loyalties, the reluctance to surrender sovereignty, limits their effectiveness as coordinating bodies.
- *Associations or unions of teaching staff*, e.g., in Nigeria the National Association of University Teachers, in the United States the American Association of University Professors, in Canada the Canadian Association of University Teachers. Such associations or unions are most likely to be coterminous with the range of the governmental fiscal authority (the nation, the state, or the province) when their salaries are negotiated at that level rather than at the institutional level.
- *Unions of support staff*, which are often affiliated with national trade unions, e.g., the Ontario Public Service Employees Union which represents the support staff in the colleges of applied arts and technology in the province of Ontario.
- *Associations or unions of students*. Examples here are the Swedish National Union of Students (SFS), and the Australian Union of University Students.

Associations of institutions or their heads, and of teaching staff, are likely to be confined to the U *or* the non-U sector, whereas unions of support staff and of students are more often systemwide, embracing both U and non-U sectors.

Special Problems in a Federal State

Most of us who live in federal states tend to be unaware of the large number of societies which are so governed. They include, of course, the U.S.A., the Federal Republic of Germany, Mexico, Brazil, Nigeria, India, Australia, Switzerland, and Canada. Even Britain is flirting with a modified federal system. Some of the characteristics of the complex federal way are noted here.

When the central government attempts to shape national policy for higher education, it cannot ignore the interests and jurisdiction of the local (state, provincial) governments; nor can a national policy be implemented without their cooperation. In this connection, it is interesting to note the federal attempts to facilitate dialogue between states and the federal government—in West Germany since 1969, when the Council on Science and Education (*Nissenschaftsrat*) was created, and in Canada, especially in 1976 when in connection with the renegotiation of federal-provincial fiscal relations, the federal government proposed a "forum" for discussion with the provinces of goals for higher education. The U.S. Education Commission of the States is a states' rather than a federal government initiative, but it does facilitate some cooperation.

Like the institutional members of voluntary collectivities, representatives of local governments have divided loyalty: first to the local scene, second to the national, the collectivity. Effective national initiatives may depend on the surrender of some local sovereignty—which tends to be resisted.

So national coordination and control of higher education is complex and incomplete. It is most feasible in those areas where funds and constitutional authority coincide, but is still possible by negotiation in areas for which federal funds are available even if the constitution stipulates local jurisdiction.

Evaluating Coordinating Agencies

When it comes to evaluating coordinating agencies, it is not a question of whether coordination and control are necessary, but rather of whether a particular arrangement for these purposes is suited to, and wisely, sensitively and effectively administered in, a particular setting.

A particular arrangement will be successful if it helps to achieve the goals of the interested parties (chiefly governments and the IHEs in the system) at a price they are willing to pay. Such goals include adequacy of financial support for IHEs, clear lines of authority, efficiency, accountability to the public, articulation and rationalization of the system, planning and facilitation of development, and interpretation of the objectives of the interested parties to each other.

Regarding *price* (in terms more fundamental than financial costs), the more control is exercised by the government the less autonomy is left to institutions (though some, e.g., Walter Worth[8] and Ernest Boyer,[9] argue that system assures autonomy). The questions then are:

- How much control must government exercise in order that it may assure the people that the public interest is being served?
- How much autonomy must an IHE retain in order that it may play its proper roles? Enough to assure academic freedom?

The result at any one time will be an unstable equilibrium—a balance of the forces of authority and autonomy—and success will depend to a large extent on the quality of the people in leadership roles.

Models for Export?

Some models of arrangements for coordination have had such success at home that they have been widely adopted elsewhere. This has been true of the U.S. statewide coordinating board. It has been even more true of the British University Grants Committee. Indeed I sometimes wonder whether there is not what one might call a UGC cult. In Canada, too, we tend to copy from each other. The Universities Grants Commission of the province of

Manitoba, a UGC-type body, has provided the pattern followed by most of the western provinces.

We have much to learn from each other, but every society is different and, consequently, a most critical approach to the adoption of other peoples' models seems appropriate.

Notes

[1] Britain, Committee on Higher Education, *Higher Education: Report of the Committee appointed by the Prime Minister under the Chairmanship of Lord Robbins, 1961-63.* Cmnd. 2154 (London: HMSO, 1963), p. 249.

[2] Burton R. Clark and Ted I. K. Youn, *Academic Power in the United States.* ERIC/Higher Education Research Report No. 3 (Washington, D.C.: American Association for Higher Education), p. 3.

[3] W. A. S. Smith and Hugh J. Arnold, "Government-university communication should be direct—no advantage to having a buffer group," *University Affairs,* XVII, 6 (July 1976), 18-20.

[4] Henry B. Mayo, "Universities and Government: A Preliminary Political Analysis," in *Studies on the University, Society and Government prepared for the Commission on the Relations between Universities and Governments* (René Hurtubise and Donald C. Rowat, commissioners) (Ottawa: University of Ottawa Press, 1970), Vol. I, p. 561.

[5] James A. Perkins, "The Future of Coordination," in James A. Perkins and Barbara Baird Israel, eds., *Higher Education: From Autonomy to Systems* (New York: International Council for Educational Development, 1972), p. 283.

[6] Alberta, Commission on Educational Planning (Walter H. Worth, commissioner), *A Choice of Futures: Report of the Commission* (Edmonton: Queen's Printer, 1972), p. 131.

[7] Walter H. Worth, "From Autonomy to System: A Provincial Perspective." A presentation as part of the 1974 University of Lethbridge Seminar Series "Politics of Higher Education" in Lethbridge on February 21, 1974.

[8] *Ibid.*

[9] Ernest L. Boyer, "Systems of Higher Education," in *Higher Education: Crisis and Support,* Conference Papers Number One (New York: International Council for Educational Development, 1974), p. 77.

HIGHER EDUCATION SYSTEMS: SOME SOCIAL IMPERATIVES

Francis X. Sutton

A system of higher education is significant for the society in which it occurs from two broad and interrelated points of view: the point of view of the society in which the system exists, and the point of view of individual fulfillment or opportunity. The latter becomes a kind of ultimate imperative because it involves the degree to which the system makes possible individual opportunity or fulfillment, quite without regard to the larger significance in the social system of such fulfillment or opportunity.

At the International Association of Universities meeting in Moscow last summer, nothing impressed me more than the difference in the weights of these two points of view, between Eastern Europe and Western Europe, between the socialist countries and the western countries. It showed up most clearly in discussion of manpower planning and its relevance to decision making in a higher education system. The difference was so striking that there was rather poor understanding between east and west on these issues. I remember a Hungarian presenting a very finely tuned system in which they were going to be a few lawyers short, but hardly anything else would come out wrong in the total system. He was then followed by a Dutch rector, who despaired of any correspondence between the output of universities in Holland and the manpower demands of the society, and went on to discuss other functions of higher education. Such statements accumulated until a rather pedantic fellow, from Rostock I believe, thought there was a failure of understanding on technical points; he offered "information," as he put it, on how you conducted manpower planning. I took all this to be evidence of a really fundamental difference in conceptions of the purposes of a higher educational system.

My main focus is on the social system point of view and its implications for the functions of systems of higher education. First are *selection and supply* functions and then, of course, the *research* function. Also, there is something that I will call the *integrative* function, and finally the *service* function although where it fits in the taxonomy is not totally clear.

Selection and Supply

First as to the supply and selection function. As Lyman Glenny noted, dissatisfaction with manpower planning is today virtually universal. This contrasts starkly with the enthusiasm for it 15 years ago in relation to the developing countries when Eric Ashby and others urged that the development of higher education systems be based on clear-cut manpower demands. Now, according to Mark Blaug, one finds complete disillusionment with the manpower planning that has been carried out.

In my view the change has gone too far. There is a kind of perfectionist criticism that has demanded too much precision and led to throwing out indispensable guides. Judgments of scale occur everywhere, and must be made somehow. Sometimes gross orders of magnitude become very important for planning. For example, in some recent years in the United States, we have turned out as many as 1,300 Ph.D.'s in mathematics while the foreseeable demand, according to the mathematicians, is no more than 400 or 500 a year. When such gross disparities turn up, it does seem prudent to try to do something about them, and this requires some sense of the manpower demand. Incidentally, one of the striking differences that one sees between the Soviet and Western systems is the extraordinary enthusiasm for mathematics in the Soviet Union. There the allocation of university places is not by student demand, but by judgments of the national need for the training in the various fields. Some of the results are astonishing from our point of view. I was told last summer at the University of Leningrad that they intended to admit 500 people in mathematics that fall and, I think, 60 in history, with of course enormous disparities between the number of applicants per place in those two broad fields.

Whatever the character of the system it must have some kind of relevance to the manpower needs of the society, though not necessarily in specific professional respects.

Related to this is the importance of the general quality of people trained through higher education, an element in the selection function characterized until relatively recently by the concern for liberal education as a background for managerial functions in public administration and related fields. Universities and higher education systems are a way of selecting talent for a whole range of positions in a society where subsequent means of selection have all kinds of imperfections. The use of parts of universities or specialized agencies in higher education as a means of selecting people for public service or corporations is, of course, a very familiar sort of thing and a social device with obvious merit both from an equity point of view and as a means of assuring good performance.

One sees distressing situations around the world where the people just are not good enough, where at the top of the system that superior quality or performance so essential to coping with the modern world is lacking. I know of a couple of African countries, for example, that do not have an economist sufficiently competent in monetary problems to advise on when they should devaluate, or how they should tie themselves to some other currency. Such questions are inescapable in the modern world, and require a selection arrangement which assures that people with superior qualifications, whether specialized or generalized, get up to the top of the system. Some higher education systems in the world serve this function very well, and the content of what people learn in the system may be less important than that the selection be rigorous and good.

There is now a great deal of pressure against the maintenance of such selection. Some countries are bedeviled by the fact that they dare not make any rigorous selection at all, and consequently have completely indiscriminate public hiring of university graduates irrespective of the quality of their performance in their university careers. Countries like Indonesia or the Sudan are plagued by this phenomenon; selection by talent must be subsequent to entry into public service because the university does not perform a useful selection function. By contrast, the *grandes ecoles* in France constitute one of the world's best systems for making sure that the people who get a clear track to the top are intellectually superior. Even the cadres, now much criticized, seem to me another defensible effort based upon the presumption that delicate levels of selection are needed for the highest levels of performance in the management of a complicated modern society. Finally, although the selection function of a university is very important in many societies, it is not something that the higher education system can maintain by itself, as it must obviously have cooperation on the part of hiring agencies to be effective.

Research

My remarks about the research function will be limited because it has already prompted much discussion in the seminar, and is unquestionably an important function in modern society. It differs significantly by the scale of the society in which the university system exists and by its level of development. There is a tremendous amount of talk now about the need for developing countries to have better scientific and technological capacities. Related to this is a kind of international ideology according to which the rich countries maintain their advantages chiefly through knowledge, and the developing countries are being held back because there is imperfect transfer of scientific and technological competences. This is, of course, ideological exaggeration, but it raises interesting questions as to the research function, or, more broadly, the scientific function of universities in developing societies.

Integrative Function

It is in connection with the integrative function of higher education that one sees the social system implications of questions of individual opportunity and fulfillment. My own judgment is that every society probably has a bigger and more expensive system of higher education than it ought to have, in some rational sense, either in actuality or in prospect. It is now commonplace to denounce the excessive development of higher education in the poor countries. In my view this is useless rhetoric as all these systems are bound to be somewhat bigger than they ought to be from a manpower point of view, and possibly also from the research point of view. However, one must look at this matter of scale from the point of view of the integrative functions of higher education systems. By integrative I mean in the first place that university experience does something other than train people in specialized knowledge. As Burton Clark remarked, the fact of being a college graduate as distinct from a high school graduate is an extremely important social variable in the United States. It is even more important in other societies where graduate status is inescapably noted and prized, so that restricting access to such highly prized status can produce very severe tensions in the society.

The integrative functions of higher education also connect with problems of national identity. There is a sense in which universities must become cathedrals of the national culture, and the role of these institutions in exposing people to the national culture is something of consequence. As someone who for a number of years has hired people to go overseas, I know that the worst prospects are those with children in the upper classes of high school or their first years of university. People want their children to be at home in that period, a desire that has to do with the transition from youth to adulthood. It also has something to do with the national identity function of the school system.

Unresolved Functions

Several other points could be made on all the functions of higher education. Among these the political function should not be ignored, and the political importance of universities is great in all sorts of societies, typically more so in states other than the United States. Also, we need to judge how much sheer dissension and division a society can bear. This fact is very important for societies that cannot hope to have universal access to higher education. Many will be left out, and one has to consider the meaning of that exclusion for the integration of society. [Even in very affluent societies, this can be a serious problem as it can involve a significant fraction of the population that has, as it were, opted out from the main track, say to become Wallace voters and emphasize the good life with the barbecue in the backyard and none of this nonsense about keeping up with *The New York Times*.] That sort of adjustment can happen on a class basis or on some other basis. In any case it is a very important consideration to bear in mind in connection with the integrative functions of higher education.

Finally, what are the cost-benefit implications of all this? If one accepts as realistic the assumption that higher education systems are always going to be relatively large in relation to their optimal size on manpower or other clear functional grounds, then one must ask how large dare they be without damaging other functions in society. This very serious question, especially for poor countries, calls for better guidance than we now have on the relationship of the cost of university education to GNP per head, although this, I fear, may not result in a very defensible ideology. It is embarrassing to think of the scales that external experts propose to some countries for their educational systems. For example, how can Tanzania justify a university or university system with more than, say, 6,000 students in it? Even that promises to produce an excess of university graduates at great cost to a poor country with some 14 or 15 million people. And yet Vermont, a state of only 400,000 people, has a university that big, and there are other universities in that state. So it is embarrassing, but still I fear we cannot avoid raising cost considerations.

Clearly a great deal more research must be undertaken before defensible judgments can be made on the optimum size of higher education systems in countries at different stages of development, judgments which strike the right balance between demands for individual fulfillment and the imperatives of the social system.

SYSTEMS OF HIGHER EDUCATION

John W. Nason

The surge in recent years from elite to mass higher education has disrupted traditional patterns on both sides of the Atlantic. The impact of the new students—new in numbers and new in diversity of backgrounds, needs and expectations—on systems relatively inflexible in program and design has created the problems and agonies which both developed and developing nations face. In the United States the trend is away from the institutional individualism of the past toward greater coordination and control. In many European countries the more tightly centralized systems are moving toward greater decentralization, although the relatively decentralized system in Germany is shifting in the opposite direction. The need for flexibility points to decentralization; the demand for accountability leads to more central control. The problems and tensions are probably greater in Europe where the explosion in enrollments, though numerically smaller than in the United States, has been greater in percentage terms and where deeply rooted traditional patterns of education have made accommodation to the changed demands of the past two decades more difficult.

The countries represented by the participants in the seminar covered a bewildering range of systems coordination and control or of noncoordination. France with a national Office of the Secretary of State for the Universities, and Germany with a federal system, are examples of strong bureaucratic systems combined with considerable faculty autonomy respecting staff and curricula. Both are struggling with mixed success to bring about more effective participation in decisions by presidents, faculty and students, and greater diversity of programs. Poland, perhaps less rigid than other East European socialist states, has a state-controlled educational system in which the goals are clearly defined by an ideology involving service to the state as well as intellectual growth and scholarship.

Sweden would appear to occupy a middle ground. The reforms contemplated in the 1975 legislation allow for several levels of coordination and autonomy. While it remains to be seen how influential the six regional bureaus will become, their control over allocation of some funds for higher education and potential influence over educational decisions constitute an attempt to decentralize in part what has been a highly centralized system.

The United States exhibits the whole spectrum of coordination short of unitary federal control. Beginning with independent and autonomous institutions, the "system" now includes loose and voluntary associations organized around types of institution or regional concerns, religious affiliations or common purposes; state coordinating boards for public and private institutions, with advisory functions only, but functions which can in certain circumstances border on constraint; statewide governing boards for all public institutions or for one type of institution such as senior universities or community colleges; and single state systems such as SUNY with its 74 campus units.

In Canada each province provides some coordination of higher education, the degree of coordination varying almost as much as in the United States, in spite of the fact that the federal government pays over half of the cost of postsecondary education.

At the other extreme are countries such as Iran where each national university is responsible to its own governing board (composed of certain *ex-officio* members such as the Minister of Science and Education, and members appointed by the Shah including a few laymen—usually wealthy donors). Such coordination as exists is facilitated by the personal interest and influence of the monarch and from an annual conference of representatives of both higher and secondary education.

With the exception of Peru, Latin American countries exhibit little coordination. Although state supported (with the exception of a handful of private institutions), Latin American universities have a long tradition of institutional autonomy. Associations of universities are beginning to provide platforms for the discussion of common concerns and the correlation of programs; but such coordination as exists is informal rather than formal, political rather than constitutional. The one exception is Peru when the Peruvian Association of Universities, itself autonomous, exercises authority over its members with respect to various programs.

From this diversity it is obvious that every system of higher education is, in important respects, a reflection of the social, economic, political and cultural milieu in which it operates. National traditions and attitudes shape its character. The socialist philosophy of Poland determines the high emphasis on civic responsibility of the Polish system. The federal nature of Germany and the United States set limits on unitary control. The strong emphasis on individualism in the American political scene led to the original proliferation of independent institutions. German respect for constitutional and legal authority and regulations is a cultural and political factor which any changes in the German educational system must take into account. Coordination is the product of more than formal agencies. It depends on the role of political parties; of the monarchy (Iran); of the courts (Germany and increasingly in the United States); of extra-governmental agencies and associations (such as unions and professional societies); of the degree of participation of administrators, faculty and students; of the training and outlook of the bureaucratic staff exercising power of decision in executive offices, in legislative halls, in coordinating and regulatory bodies. All these in turn are shaped by the cultural context and history of the country.

Objectives of Systems

A few examples will illustrate the point. Higher education has an integrative function in terms of transmitting and nurturing a sense of national values and heritage. It confers social status in addition to or indeed quite apart from greater intellectual competence. And this social status will vary with the national context. Take manpower needs—to be considered in more detail anon. Sharp differences emerge between Eastern and Western Europe. One function of postsecondary education is to provide the cadres necessary to maintain and improve the national well-being. The *Grandes Ecoles* of France do an effective job in guaranteeing professional and civil service positions for virtually all their graduates. Some developing countries, on the other hand, must calculate very carefully the relative costs in total social benefits of higher education in relation to other social needs.

How effective are systems in dealing with the problems they face? In countries like the United States which are moving toward greater coordination and control, two clear objectives are to create order out of near chaos and to provide qualitatively and quantitatively the most education for the money available. This becomes particularly important in a period of steady or declining resources for higher education, which, at least at the state level, is a poor third on the list of U.S. social services. The problems created by more coordination and control are how to protect institutional autonomy within the system, how to maintain minimal diversity, and how to encourage innovation.

Theory vs Practice

Again and again in the seminar the distinction was emphasized between myth and reality, between the theory of coordination and control and the way it operates in actual practice. In theory, a state university system such as SUNY is a hierarchy composed of diverse units with overall central control and statewide planning. In actuality decisions are made at different levels according to the nature of the issues, with local institutions retaining primary authority over curriculum and faculty appointments while the chancellor's office decides such matters as budgets, enrollment levels, future projections, and building programs. One-year budgets and short-term pressures make useless most efforts by the central office at long-term planning. In most states, the public colleges and universities submit budget estimates for review by the agency for higher education for the state. This agency in turn submits its recommendations to the governor's office or budget office which in turn makes recommendations to the legislature. The legislature takes action after its educational committee staffs have reviewed the figures. This progress leaves much room for political intervention in reaching the final decision; and while the technicians have great influence at each of the stages, personal and political connection and influence may have even more. The heads of universities and systems are turning to political lobbying in the governor's office and the legislature—which is precisely what the coordinating agency was supposed to prevent.

In Europe on the other hand, the effectiveness of the educational system is (or should be) judged in part on the degree of flexibility and responsiveness it introduces into the traditional framework. How well does it allow higher education to adjust to the growing demand not only for postsecondary education for more and diverse individuals, but also for a wider range of programs and greater freedom in choosing among them? Here, too, there are discrepancies between myth and reality. Laws reforming the structure and operations of higher education in France, Germany, Belgium, Sweden and elsewhere—laws enacted as a result of the tumultuous demands of the 1960s—have brought about change. There is more participation in making decisions in France. The allocation of funds is more explicit than it was. In Germany the paths to post-secondary education are less narrow and tightly controlled than they were. In Germany, however, the existing legal structure and the position of the universities within it have prevented the development of new structures to cope with new demands, and the problem of *numerus clausus* is a nightmare to the system. In France the Council of Presidents, nonexistent before 1968, was formed shortly after that date and has become more and more influential; but traditional prerogatives of senior faculty, political considerations, lack of sufficient data and lack of adequate funds combine to thwart many of the desired reforms.

One measure of the effectiveness of educational systems is their capacity to allow for and indeed to encourage innovation. Change for its own sake has little to recommend it, as one participant in the seminar vigorously argued. But changing student demands and changing social conditions require nontraditional responses. The replacement of senior professors is a case in point. In France senior professors maintain a firm hold over senior appointments through traditional machinery by which a committee of academic specialists in the discipline recommends the appointment of Professor X who, with the subsequent approval (largely formal) of the University Council, is then appointed by the Minister of Education. In Germany the Minister normally appoints one of the three candidates recommended by the university, although he is free to name a fourth outside the recommended list and recently has done so. This, however, is rare. Changes in the number and discipline of senior professors can be made only by action of the budget committees and state ministries of education in allocating funds. Relative to the American system, where administration has more freedom in appointments, it is a cumbersome process for bringing about change.

The creation of new institutions is another example. All systems maintain in some kind of precarious tension the demands of students for courses and programs, faculty convictions or preferences for what should be taught, and the expectations of the society which supports the whole enterprise. At different times and in different countries one or another of these forces will predominate. In recent years, for example, student demands have been a major factor in changing the curriculum in the United States. In England what faculty are prepared to teach is still the decisive voice. In Poland and other Eastern European countries demands and expectations of the State or of the Party dominate.

Another condition of the effectiveness of educational systems is the degree to which its goals are clear and its structure understood. It was suggested that a major weakness of all Western education was the lack of clarity regarding goals and the ambivalence between formally stated goals and the goals that emerge from actual operations and decisions. Goals, it was suggested, cannot be proved. They are convictions intuitively arrived at. Coordinating agencies have a real and important function in making those purposes clear. And so also with structure. One criterion for appraising a system is the extent to which it is well articulated and the articulation understood. Too great a discrepancy between myth and reality is disastrous.

Value of Comparative Studies

If one side of the Atlantic is moving toward tighter coordination and the other toward a looser and more flexible system, are there any generalizations to be drawn from comparative studies in higher education? Several emerged from the seminar discussions.

1) As already noted, educational systems are colored and shaped by the cultural context in which they develop. We can, therefore, expect no uniformity among the systems which will embody common goals and concerns in different national forms. While we can learn from one another, we must be sensitive to the danger of trying to export one country's model into an alien situation.

2) International comparative studies in education are more an art than a science. They need and deserve a great deal more attention than they have so far been accorded, and there are many methods for investigating similarities and differences. The seminar

spent one entire session on the subject, reviewing studies already made and debating the merits of different methodologies. The need for appropriate projections, for concept-guided and problem-oriented approaches, for careful analytic frameworks was noted, as was also the uncomfortable fact that comparative educational studies as yet have no recognized disciplinary home. One conclusion to which all agreed was the need for more empirical data. The OECD has made significant contributions in the past 15 years to a better understanding of both secondary and tertiary education. The time has come, however, for a frontal attack on higher education, and for that we need more data, more information, more funding, and more precise measures of effectiveness.

3) People are more important than systems. The best structure for coordination will not work if the people managing it are inadequate. The worst system will suffice if it is run by first-rate people. The value of the system, in short, depends on the ability and intentions of those who administer it.

4) Many criteria can and should be used in evaluating an educational system—its goals, its structure, its flexibility in encouraging innovation, its external relations, its governance. Participants agreed that its capacity for self-evaluation should be high on the list. A candid appraisal of one's own performance is a major guarantee of the health and viability of the system.

5) And finally, in the modern world, some coordination of higher education, indeed of all education, is inevitable. The expansion in numbers of postsecondary students and the diversity of educational demands—in short, the pressure of social justice for greater educational opportunity—create the need for broad social controls. So also do the need to allocate limited funds so as to maximize the results and the need to recruit the best talent for service to society. Accountability entails some form of supervision, which in turn requires some agency or mechanism apart from the institutions held accountable. When higher education was genuinely higher or at least when it was restricted to a limited elite, universities could be left largely to their own devices with limited control by outside governing boards or Ministries of Education. The bureaucracy of coordinating agencies and state offices of control may be obnoxious and frustrating. Nevertheless, such agencies are a growing, inevitable and necessary part of our educational systems.

III. YOUTH, EDUCATION, AND EMPLOYMENT

EDUCATION AND THE WORLD OF WORK—AN ANALYTICAL SKETCH

Clark Kerr

My comments focus on three general questions: What is the fundamental source of our current problems? Is there such a thing as *the* youth problem? If there is, what might be its possible solutions?

On the first question, I believe that our current problems stem from the basic change in the economic structure of industrial society with the heavy dependence of economic structure on the new technology. With the new technology has come a system of management which makes most people into employees, subject to the rules of others.

Going beyond the economic structure but associated with it are two crucial factors: the increasing longevity of the population and the enlarging role of the media. Longevity is a result of the new economic system, and has fundamental implications in sociological and psychological terms quite beyond the economic. But from an economic point of view, longevity has at least these impacts. First, it pays people to invest a lot more in their human capital. They have a much longer payoff period than when the average person's life expectancy was 35 years. When one's working life can be 45 or 50 years, the payoff period is very long, and it pays to invest a great deal more in our human productive capital. It also pays to invest much more in what the economists call a durable consumer good. That usually means such things as refrigerators, but the individual has within him durable consumer goods in such ways as appreciation of music, art, and literature. These two considerations have, of course, big impacts on education. If you are going to be living a long time, the choice of your life-style and occupation is a much more important choice than if you have only a short period to look forward to. Hence the importance of longevity.

Turning to the media, Daniel Lerner's *The Passing of Traditional Society*, which essentially discusses six Middle East countries, categorizes people as traditional, transitional, or modern on the basis of their reliance upon the mass media to gain their knowledge and expectations of life. Bringing in radio communication even before there are newspapers makes an impact upon people's lives that is fundamental. However, the role of the media and the impact of longevity are still subsidiary to economic structure in determining what happens in the world of work.

In analyzing the world of work, I see five mainstreams of life. The new industrial system changes the proportions of people in these different streams, changes the content of them, and creates new ones. People can cross over from one stream to another, but there are some people who live in one stream all their lives. Four streams are preindustrial, but today take somewhat new forms.

The first preindustrial stream of life includes established occupations entered through one's family: farming, the crafts, and the ancient professions of medicine, law, and theology. People typically entered these occupations as apprentices to their father or another relative. As late as 1870 about 80 percent of Americans were in that stream of life, and today the number is still about 20 percent. In most of these occupations formal education however is now more important than formerly.

The second preindustrial stream is the stream of the aristocracy, a stream based not upon occupation but upon wealth. That stream continues and probably with more people in it, although the chain gets broken more rapidly with inheritance taxes and the like. In the aristocratic stream, one's life pattern is determined by inherited wealth rather than by inherited occupation.

The third stream is that of structureless employment. In it people are not committed to one employer or to one job. The craftsman is committed to one job and the industrial worker to one employer, although he may do many different tasks for that employer. For those in structureless employment—and there are many—life is not organized around a single occupation or single employer. Whereas some time ago these were the many people who did odd jobs in rural communities, now this structureless employment is largely urban. It involves the people who work in restaurants, in car washes, and in gas stations. They go from one type of work to another, from one employer to another. They tend to be low-skilled, high-mobility people, and there are substantial numbers of them.

The fourth stream, the culture of poverty, used to involve mainly the subsistence farmer, of whom we still have some in the United States. Now subsistence living tends to take place either on public or private welfare—the public welfare through all kinds of relief, the private welfare through the family supporting the young person in the culture of poverty. Some people now choose the culture of poverty voluntarily because they want it, but many more are propelled into it by industrial society. Today in the United States we have a third generation of young people in a culture of poverty. Their families have been in this culture of poverty, and they too are in it. Partly it is because the jobs that many such people used to have have been abolished in the industrial system. Instead of newspaper boys, a machine dispenses papers. People selling flowers on street corners or people running elevators have disappeared or are disappearing. We have abolished many occupations which used to absorb people of low ability, either physical or mental. We not only abolished their jobs with machinery, but also in part by the high standard of minimum wages. We can no longer afford to pay people to do these kinds of work.

On top of these four preindustrial streams, each of them now changed somewhat, there is a fifth, the industrial stream with its established new occupations, whether private or public. One enters is not out of inherited occupation or inherited wealth or from the lack of such inheritance (the structureless segment) or from the culture of poverty. One enters it through school and competition. For the first time in the history of our planet a very large number of people get into their stream of life predominantly through education and competition within it. This has created three basic problems.

Basic Problems Caused by Education

The first of these is that in developing the industrial system we have built in excessive rigidities. The Webbs wrote, with great approval and fervor, about the establishment of the "common rule." Put into effect by employers, trade unions, and government, it was considered a great thing because it eliminated prejudice and the traditional personal way of running society on the basis of preferment and discrimination.

Developing the "common rule" was a great theme of reform in the last century, but now may bring *rigidities which handicap society*. We have lost the flexibility characteristic of more primitive societies, and to some extent of agricultural society today, where each day you decide what to do that day, depending on the weather, the season of the year, your inclinations, and so forth. In industrial society this is not possible because we have put everything under rigid rules, and this has had a very big impact upon youth.

The phasing of education, of work and leisure is subject to or the product of these rigidities. With respect to formal education, we start with none at all for the young child. Then all of a sudden we put him into full-time formal schooling for a certain period of his life, and then drop it altogether again. Formal education as the focus of a person's life goes from zero to essentially 100 percent to zero again. Then comes work. All of a sudden, we tell people "you are now going into work," and they then are immersed in work until at a certain age they are out of it 100 percent. It is a traumatic experience, both going in and getting out. Now in more primitive societies and in agricultural society today, you keep on working as long as you can, less per day, but you still keep working.

Leisure is another element in the pattern. The preschool child can be said to have a great deal of leisure. Then you put him in school and reduce the leisure to a lower level, and then into work and reduce it still more. When all of a sudden you retire, it is, as with the preschooler, full-time leisure again. These changes happen to people in a single day, in 24 hours. In terms of earnings (not income) we start people out with nothing at all. We then all of a sudden give them earnings, generally increasing these through seniority or skill, and then all of a sudden we drop their earnings again to zero.

To summarize, I would therefore say that the first basic problem for the people who are in the industrial stream in society is that a variety of forces, including government, employers, and trade unions, create various kinds of rigid rules and patterns and that these rigidities then come to govern people's lives.

The second basic problem, which is closely related to the first, is the fact that as compared with preindustrial society, we have two extremely difficult *transitions built into industrial life*. One is the transition from school to work, and the second, which can be just as difficult, is the transition out of work and into full-time leisure again at the end of life. These are two very traumatic experiences of youth and age.

The third basic problem in this fifth industrial stream is that to do well you have to have an institution watching out and caring for you. The people inside the *"care system"* are very well taken care of, compared with anybody in past history. If you get inside General Motors or inside the University of California, for example, somebody is looking out—taking care of your health, providing you your income, and so on. Those left outside are in a really difficult situation, especially the youth.

Institutional coverage in the industrial stream is inadequate for youth as nobody has a residual responsibility for it. The family and the school watch out for children and adolescents, but then there is a largely uncovered period. Then one goes into the corporation or trade union or government agency. When one comes out again, he or she may be covered by some form of income, usually depending, in the U.S. system, upon the employer, not the government; but nobody is watching out for one as a total human being. So I would say that our industrial stream has these three basic problems to it: the rigidity of the rules, the difficult transition points, and the inadequate institutional coverage at some points in life.

Problems of Youth

In discussing the problems of youth and employment, I have a question about terminology. The word youth does not seem exactly appropriate, nor do the traditional terms of childhood, adolescence and adulthood. I think we are seeing the development of an in-between stage for which I suggest as a possible name the one used by John R. Gillis in his study, *Youth and History,* namely "young adulthood." It suggests an in-between period which is different from adolescence and adulthood and for which the term youth does not fit because it carries the impression of being young and not in charge of oneself. When we are talking about young adults, in the sense that they have responsibility for themselves, I wonder if we do not need a term which is different from the concept of youth and more in the direction of "young adulthood."

On my second point: *the* problem of youth. First, I do not think one can talk about "the youth problem" because it makes a major difference which of my five streams a young person is in. To talk about youth *in toto* ignores basic factors such as which stream is the person in and to what stream does he want to go.

Second, and related to the first, the nature of youth problems depends on the characteristics by which one defines young persons and the different cells into which one puts them. One way of looking at people is by age. If you take 16- to 24-year-olds, in 1970 the chance of a 16-year-old being unemployed was 14.5 percent and of a 24-year-old, 5.2 percent. So each year makes an enormous difference. To talk about the 16 to 24 age group can obscure major differences within it.

If one looks at youth and employment from the point of view of education, in 1973 those with less than 12 years of education had a 15 percent unemployment rate, those with 16 years or more under 5 percent. Race is another important factor in the United States: in 1970 white unemployment for ages 16 to 24 was 8.6 percent, compared to 10.6 percent for Hispanic-speaking and 13.6 percent for blacks. These rates differ little by sex but do by location. It is better for young males to be in a rural situation, and for young females to be in an urban situation, from the employment point of view. To look at several characteristics together, white males with 16 years or more of education had an unemployment rate of 3.1 percent in 1973 when the overall rate was 8 or 9 percent, or one third the average rate. At the other extreme, in the fall of 1975, for black youth who had dropped out of school in 1974-75, the unemployment rate was 61.4 percent. Because the youth problem from the point of view of unemployment goes from 3 percent to 60 percent, I question if we can talk about *the* problem of youth. It breaks down into a whole lot of different situations which need somewhat different solutions.

Trow's Categories

Martin Trow, a sociologist at the University of California, Berkeley, is preparing a paper on the subject of youth which also goes into the plurality of problems. He has a schematic presentation according to which he categorizes youth in four compartments, as shown in Chart I below, on the basis of their financial resources and their preparation for industrial life which involves their family situation, personal qualities, schooling, and career motivation.

First are "The Advantaged," those that have both the resources and the preparation for life to fit into the meritocracy, and for them one could say there is no problem.

In the second group are "The Alienated," the young people who are not being prepared for life, either because of family circumstances, personal circumstances, or schooling, but who have financial resources.

The third group comprises "The Disadvantaged," those who lack the resources, but are being prepared, for example, out of what we call "ethnic" families, to take their place in the meritocracy. The problem for them, which the Carnegie Council and the Commission before it largely had addressed, is how to get them the funds needed to do what they want to do.

Finally, there are "The Deprived," those who have neither the wealth nor the resources, the ghetto youth.

For the United States, I would say about 80 percent of American youth is now in category one. The second category, where there are the resources but not the preparation for life, i.e., some of the children of the well-to-do and the wealthy, I would estimate at less than 5 percent.

CHART I

Preparation for Life

		Early Education and Socialization	
		Adequate	*Inadequate*
Family Financial Resources	*Adequate*	I The Advantaged	II The Alienated
	Inadequate	III The Disadvantaged	IV The Deprived

Martin Trow, "Reflections on Policies for Youth," paper prepared for the Conference on Young People in Contemporary Industrial Society, Ditchley Park, England, October 1976.

Another 5 percent have adequate preparation for life, but not yet enough resources from either private or public sources; this category is a residual and disappearing one. The fourth category—the ghetto youth with no resources and no preparation— I estimate at maybe 10 percent or more.

When one considers solutions to the so-called youth problem, they clearly are much more complex than the term "youth" implies, whether you take the five streams or the numerous statistical cells or Martin Trow's four categories.

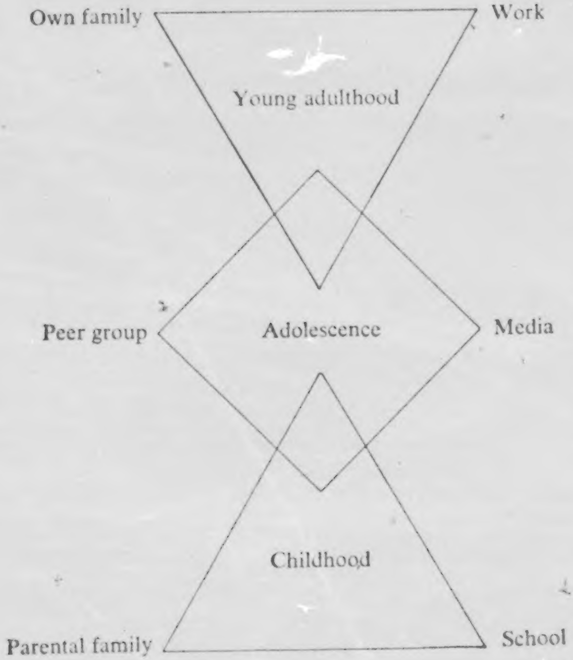
Having said that there is no such thing as the youth problem, I shall be quite inconsistent and discuss solutions to it. For this I return to the concept of transition points, and these are depicted in Chart II below. The bottom triangle depicts childhood in which the individual is initially almost totally dependent for environment on the parental family and the school, at first mainly the family. As one goes further through childhood, the peer group becomes more important as do the media, and then in young adulthood the experience of work increasingly takes over along with the creation of a new family structure.

When you look for solutions—and some of the problems may have no solutions—I would say that you ought to look first of all at the family, because it is the family that gets people into the streams of life and gives them the motivation to move on. The Coleman study and many others confirm that the way people get started in life makes an enormous difference in what happens later. Second, the combination of work and education through part-time courses and work, and through apprenticeship jobs is the second crucial area to explore. And third is how to get some kind of an institutional structure that will be a residual base for youth and enable it to be covered by institutional care. In the U.S. context that means looking particularly at two places: first, higher education in its totality and the community colleges in particular, and second, some kind of a service corps, or a combination of the two. I am convinced that we have to start building in some institutional base for young people, some institution in between the parental family and compulsory schooling and the work institutions, and the best I can see are community colleges and a kind of service corps.

Rigidities

So far we have been talking about capitalism, western capitalism, particularly the American version. I would suggest that the prob-

CHART II



lem of the tendency toward rigid rules is universal in industrial societies and inherent in their logic, whatever kind of industrialism it may be, whether capitalism or eastern communism or western communism. The colonial industrial societies put in their rigid rules, too. Technology is the basis of rigidities for all kinds of industrial societies.

In terms of the institutional coverage of youth, both eastern and western communism have it, although we might not approve of the particular institutional coverage. A lack of institutional coverage is not inherent in industrialism, but tends to be the case in capitalism with its emphasis upon individualism. A society based more upon state than private initiative is more likely to have institutional coverage of youth and age. In comparing systems, if one divides the more developed industrial world into capitalism, of which there are many, many varieties, and eastern and western communism, and there are also many varieties of them, I would say that China probably handles the transition problems, both of youth and age, better than other industrial societies. It is impressive how the Chinese have put work and education together. At the age of three, the young people start working in the garden and also in the factory, and they do more work with more responsibility as time goes on. So there never is the dichotomy of schooling versus work. The two go together the whole way along. Also, in terms of the aged, the Chinese make good use of them. Block committees see to it that the older people are given something that they can keep on doing. There are, of course, however, heavy human costs in terms of loss of personal liberty within the Chinese system.

So I would say that while the problem of rigidity is inherent in all industrial systems, the problem of lack of institutional coverage is more inherent in capitalism than in socialism or communism. But the problem of the transition depends not so much upon whether it is capitalism or communism, but upon the particular policies of the system.

One final word, and this is just a suggestion. There is a tendency in all industrial societies to create a class of outsiders. The insiders are the people in the well-cared-for system, the productive people inside the big agencies of production and government. Unless it is deliberately combatted, there is a tendency to turn the youth and aged people into outsiders because both are outside the economic process. It is being inside the economic process that makes one an insider, whether a worker, a manager, owner, or something else.

Unless one does something about it, the many people in the undesirable jobs in the structureless market and in the culture of poverty are outsiders. And I would estimate for the United States today, assuming one third of youth as being put outside by choice or necessity, most of the aged, and all the people in the structureless market and the culture of poverty, that about one-third of our people would have to be put in the outsider category. One third of the nation. One of the great tasks is how to reduce that one third of outsiders and not just the youth component within it. It takes an attitude toward man and toward society, not just to solve the youth problem, but to solve what it is a larger part of, and that is the outsider problem: people outside or not fully integrated into the organized productive process.

SOCIAL CIRCUMSTANCES OF YOUTH: PRESSURES, REACTIONS, EXPECTATIONS

Henri Janne

We are faced today with what is called a "crisis of civilization." Some aspects of this crisis were outlined by Harlan Cleveland in his excellent essay, *America's not-so-Manifest Destiny,* presented at the Library of Congress Symposium on the American Revolution last May. Today among all age groups there is a lack of agreement and deep concern about the basic values of society. Even when some consensus exists, there are discrepancies between the statement of values and how they are implemented, between principles and action. This situation contributes to the generation gap. The young people, not yet involved in the compromises of societal life, and observing these discrepancies, mistrust our democratic institutions or, at least, come to expect little of them. Under the circumstances and given also the rapidity of change in the advanced societies, no wonder we see such a flourishing of countercultures, cynicism, withdrawal, violence and permissiveness among today's youth.

These circumstances have produced an ominously wide generation gap not only within the family but manifested also in education, culture, the church, economic life, and trade unions. In this connection two phenomena must be noted. First, many adults, especially teachers and parents, have a sense of guilt, and therefore go along with and even support the new youth culture. Secondly, a sociological theorem, the self-fulfilling prophecy, has an important impact; the youth become molded by others' perceptions of them. This is not to suggest that the youth phenomenon is not real, but that perception helps to shape reality or to accelerate existing trends.

Youth Shapes New Culture

Many observers characterize the "generation gap" as a revolt or, at least, as an antagonistic behavior on the part of the youth *against* the older generation. It should be stressed that this is true only for small minorities of activists. Most young people are notable for their kindness and their thoughtful relationship with older people. The generation gap should not be considered as a struggle between generations, as a new version in our consumer society of the class struggle, as alleged by many writers, in which youth is considered as a new class. This is a sociological misapprehension. Instead, the generation gap consists essentially in the fact that the young people, while typically considerate in their work and family relationships, at the same time are going quietly their own way, building up new cultural values and patterns. These involve new roles for men and women in sexual relations, family life, and work relations. This is the quiet revolution; it is a revolution because the process is rapid. It is influencing an increasing number of adults because of their own disenchantment with the traditional values and goals of life. Youth is shaping a new culture for the future.

Critical to the new culture is a redefinition of the concepts of work, success, and happiness. The notion of a successful career as continuing advancement and promotion through a competitive process is losing ground. Much more value is being placed on leisure time, security and self-fulfillment in work, and less on individual advancement and a high income. Moreover, success in life should not be judged mainly by professional accomplishment, but on the basis of broad personal growth and experience in many fields of life. This new approach toward work, success and happiness reflects youth's concern with equality; they oppose all unjustifiable inequalities and discrimination, a cultural value with important political consequences.

Youth's view that work should be regarded as a *function* and not as a *competitive process* which defines social status, is changing the quality of life. It implies significant consequences pertaining to the problems of youth and education:

—young people are disinclined to study for vocational goals only;

—education should also prepare a person for the fruitful use of leisure time and satisfying interpersonal relationships;

—curricula should have a balance between general, humanistic education and practical, vocational training;

—youth aspires to an education linking theoretical knowledge and action.

Another consequence of the new attitude of youth is that they are more open to global problems, as Harlan Cleveland has stressed. They are concerned about peace, the conservation of natural resources, the preservation of the biosphere, and the needs of the poor, thus underscoring the importance of including such "global problems" as new "dimensions" in educational curricula.

The new youth culture and world situation also require that youth be educated to cope with uncertainty. We live in a changing world where accurate forecasting is impossible. People should therefore be educated to make reasonable and responsible choices, to be inner-directed and open-minded in a pluralistic society. What is called for is self-directed learning rather than traditional transmission of knowledge. Such an approach requires true democracy in education.

Employment

Turning to the problem of employment, a major reason for youth's dissatisfaction with work is the mismatch between educational preparation with the demands of work. Methods for forecasting employment needs have failed globally. The abilities defined by the certification of terminal studies do not correspond enough, either technically or in numbers, to employment needs and opportunities. Moreover, prediction is inevitably inadequate because of the time lag between processes of decision making on studies and changes in the economy. When education is revised to meet new needs, the products of this adaptation some three to five years later face a new configuration of needs in the economy. This situation, tolerable in a situation of rapid economic growth which permits more flexibility in the demand and supply of labor, becomes dramatic in a situation of substantial unemployment. As Clark Kerr has pointed out, it produces a larger number of "outsiders" (misfits and unemployed).

Flexibility

To match carefully prescribed educational programs, credentialed through certification, to technically defined employment options involves "specialization" both in studies and work. Until recently specialization has been associated with security, status, and prestige.

Although the myth is now seen to be illusory in practice, it continues to be observed. Nevertheless, a growing consensus is emerging on a new and opposite approach: that the articulation of education and work is facilitated not through specialization, but through the greatest possible flexibility in both. This finding appears in *Europe 2000*, in reports for the Council of Europe and in the report of the OECD study group chaired by Clark Kerr.

The consequences are obvious:

—one degree will give access to several different vocational possibilities of a given level;

—one vocational path will be accessible through several kinds of degrees;

—the formal value of degrees will diminish and experience will be credentialed;

—certification will be more individualized, responding to more personal options;

—for all occupations this flexibility will need at entry to work a period for the reciprocal adaptation of the more general skills learned through formal study and the narrower skills acquired in practical work. This initial step in working life calls for close cooperation between the educational institutions and private and public enterprise, and will become a new segment of the educational system which operates within the enterprise;

—this new flexibility will also require the integration in the period of formal study of counseling and guidance so that the student can make informed choices based on a full awareness of his aptitudes and goals and occupational options available;

—counseling and guidance should be available not only to facilitate initial vocational choices, but also for later decisions on possible career changes and the educational and training options needed for such changes as a part of lifelong education.

Such a recurrent education process will be more responsive to personal aspirations, and, consistent with the new value system of youth, will strengthen autonomy and self-fulfillment. This process must, however, be reconciled with the expectation for job security. Although there is no necessary contradiction between greater work flexibility and job security, new labor regulations will be required to protect employment on an individual basis, either through law or social agreements.

There remains a fundamental problem. Will public and private enterprise embrace the "new spirit" which is indispensable to modifying the criterion of profit so far applied to the recruitment, dismissal, and promotion of workers? Will these enterprises really accept new responsibilities in the education, guidance, security, and participation in decision making of their workers? At present, it is mainly a matter of lip service. Should the managers believe that a more flexible use of human skills imposes too high a cost, they might resort to new labor-saving investments to cut back the use of qualified workers and automate their operations even more. Not new or bad in itself, the accompanying large technological unemployment might well become a crisis of the industrial system, a crisis hardly compatible with the new social goals of society for youth.

At present the status of youth is fundamentally influenced by the fact that formal education segregates them from the real societal life even though young people now mature earlier physiologically than some years ago. The main characteristics of the youth culture include: separation from the adult working world through education and through an emphasis on leisure and consumption; the importance of peer groups and the mass media; longer economic dependence and, for many, prolonged formal education which keep young people ignorant of what work and responsible social relations really are. Herein lies the failure of education. It is not pure chance that the widening generation gap paralleled the rapid expansion in education after World War Two. The isolation of youth in colleges virtually assures that they become conscious of their separate status in society. Applied to a socially heterogeneous mass, this "separation" system is fraught with disaster.

After the student unrest of the sixties, higher education institutions were democratized in many respects, and students were granted greater participation in decision making. However, these changes did not affect the essential "separation" from society of formal education. It is therefore not surprising that young people from the age of fifteen or sixteen are disaffected by the educational system and their own artificial and ambiguous status; ambiguous because they learn *to be* without really *being*, so the motivation to learn is very weak. As a consequence of this situation another principle is emerging to bridge the gap between education and work, the principle of alternation.

One should recall that in the traditional societies in the Western world until the nineteenth century, the transition from childhood to adult life, the bridge between education and work, was very short. Education and apprenticeship for work were mingled during childhood with the child's relationship inside the family because the family was also a production unit. The grandfather, the patriarch, was simultaneously the teacher and the boss, and his sons and their wives his assistants. This system could not produce the "outsiders" of whom Clark Kerr spoke, as there were functions for everyone no matter how disfavored by birth. Now the more affluent families are, the more they expect their children to go into higher education, regardless of their personal motivation. Conversely, those disfavored by birth become "outsiders," if they cannot gain admission to higher education because of low ability or socioeconomic status.

Alternate Educational Approaches

Alternation as a new way to solve the educational and the "entry-to-work" problems of the crucial age-group from 16 to 19 involves the following:

—equal time devoted to studies (reinvigorated along the principles already described) and to real work in private or public enterprises; this can follow different formulae: daily, weekly, monthly or by trisemesters or semesters:

—This work should be socially protected through a designated percentage of positions, equitable salaries, special social security provisions, trade union membership, and the availability of funds to support the alternating educational experience and relate it to the needs of working life;

—orientation and guidance for young workers to help them make informed choices relating to their educational and work aspirations.

At present too much time is allocated for formal study at the secondary and higher education levels as a consequence of the traditional concept that young people need to accumulate a given stock of knowledge. This concept has become obsolete because of rapid changes in the stock of knowledge and in the knowledge needs of our rapidly changing world. Education today should focus on methods of thinking and acting, the mastery of technical or cultural symbolic languages, a solid foundation in basic disciplines (structural, not encyclopedic), and the ability to cope with categories of concepts and operations. This perspective changes totally the time frame for formal education, and allows time for complementary work.

To conclude: an advantage of the alternation scheme is that it makes it possible to include progressively in formal education periods of paid work supervised by educational institutions, and to offer to workers an expanding opportunity for periodic career-related formal study. Such an arrangement should be the vehicle of more flexibility. It could also stimulate a rethinking of the structural classification of our current scientific knowledge as a basis for transforming higher education. While this would be a very ambitious project, its importance and urgency relate directly to the new culture, and to the need to redefine the relationship between education and work and to bridge the gap between them as well as the generations.

EDUCATION AND WORKING LIFE

Jan Szczepanski

Let me begin with a story. In an English village there was a bellringer who was illiterate. When the church council discovered that he was illiterate, he was simply fired. So he took his small savings and went to London. Coming to the city he wanted to buy cigarettes, but in the streets he walked through there was no tobacco shop. So next day he got a license and opened a tobacco shop in the area. After several years, he became a big businessman and very rich. To celebrate his sixtieth birthday, he gave a party and one of his guests said, "Sir, how successful you have been while being illiterate. Just imagine what you could have achieved having at least some school education." "Yes sir," he responded. "I would still be a bellringer in a small village."

Although this story may be apocryphal, it is apt. In some societies education places a man in a fixed position without giving him much opportunity for social mobility. A central problem with regard to education and working life is therefore what is the impact of education on a person's life? How does education determine employment?

The most general definition of education is a process in which a man is prepared for something, for example to be a scientist or an athlete. I distinguish four processes: 1) growth as a biological and psychological process of development through genetically determined traits; 2) the impact of the environment, physical, social and cultural modifying and shaping the process of growth; 3) socialization—a spontaneous process of learning, the adjustment of the child to social and cultural demands; and 4) education as the formation of the human personality according to an education ideal by interaction between educator and pupil. Education consists of teaching scientific knowledge and patterns of behavior, and forming ways of thinking, attitudes, aspirations, and the like. When we speak of the impact of education, we must not forget that these four processes are all interconnected, and that the changes in biological growth, or in the total environment, or in socialization may also have effects on education in the narrow meaning of the term.

Importance of Work

In analyzing life experience, and following here the lines traced by Stephen Bailey, we have to enumerate what human life consists of: sleeping, eating, working, family life, bringing up children, political, religious and cultural activity, health care and care of illness, recreation and leisure, hobbies, civic activity, community life, voluntary association, fighting friends and enemies, helping others, daydreaming and meditating. Out of this spectrum we will try to find those activities which are linked with work. Why is work so important? Because it is purposeful activity, whether paid or unpaid. A job gives one a sense of life, and locates a man or woman in a position in society. It gives status, prestige, and economic security. It is a basis for most of the other activities in life and influences behavior in most other fields.

Of what does work activity consist and what skills do jobs require? Professional or vocational skills to handle relations between colleagues, superiors and subordinates, to handle the process of career promotion, to participate in decision making and management, to shape a work ethic and attitudes toward work, and to help workers identify the life-goals of their jobs. Now what kind of education can ensure that work can secure the self-fulfillment of the personality in work and life and make the workers productive and useful to the communities where they live? What is the role of the family, schools and other social organizations in transforming the annual crop of babies in a society 15 to 20 years later into a body of skilled, educated, independent individuals able to handle their jobs and their social and economic situation, and to contribute to the growth of society?

At the school level this task involves both the formalized teaching and purposive efforts of teachers to form character, attitudes, and values, and the nonformalized impact of peer groups, the administration, libraries, sports, and extracurricular activities. In the vast literature on the crisis of the schools in civilized societies, one of the most frequently repeated criticisms is that the schools (higher education included) do not prepare the students for work and life, that there is a disharmony between the content of school curricula and the content of work and life.

Education should be a preparation of the child for adult life. But in many books we find the assertion that there is growing separation between life in the schools and real life outside schools. It is alleged that schools develop their own patterns of behavior and value systems which are different from those in the postschool life of adults. I do not, however, intend to analyze this literature on underachieving schools, on deschooling society, and the like. It is well known. Rather, let me outline how things are in Poland.

Education for Work in Poland

We also have a school crisis, as every self-respecting society has had in the late sixties and early seventies. The main features of this crisis have been a growing discontent with school education and complaints on the part of the managers in the economy that the education system produces graduates who are ill-prepared for jobs, that they lack the proper motivation and attitudes, knowledge, and skills. Politicians pointed to the lack of appropriate ideological and political attitudes and to the undue selfishness of graduates. They are not sufficiently socially minded.

In 1971 a committee was set up to prepare a report on the state of education and to recommend reforms in the school system in order to enhance its educational effectiveness. Without going into detail on how the committee went about its task and its activities, I shall describe how in Poland we have tried to solve the problem of the relationship between school education and working life.

First an attempt was made to analyze what life in contemporary society requires from individuals in all the various aspects and fields of activities. Then we analyzed the curricula of all types and levels of schools: what is the real content of teaching, what knowledge and skills are the schools really giving their graduates. For comparison we used the analyses of work required in various jobs undertaken by scientists in sociology, psychology, etc., and compared their findings with the content of curricula in schools preparing for these jobs.

It is significant that the evolution of the curricula in the last hundred years has been steadily in one direction—to enlarge the scope of academic knowledge and to diminish the teaching of the arts of life. The schools which started in our forebearers' time with the aim of teaching the arts of life are being converted in the contemporary world to the teaching of academic knowledge only. In my opinion, the contemporary crisis in schools consists in their slowly but steadily giving up teaching about life to other institutions. Henri Janne has already emphasized the vast flow of information which comes to students from the mass media, family life, peer groups, economic institutions, political propaganda, and so on.

What are the consequences? School is dull and uninteresting. It tries to give out too much knowledge. The graduates forget about 80% of what they learned one year after their school leaving examinations. Moreover scientific and technological progress makes some of the school learning obsolete in a few years. Most of the real advances of science and technology in industrial, space and military research are classified and unknown to the higher education teachers. As scientific and technological progress keeps changing the content of work, graduates leaving school in 1976 are expected to change the content of their jobs three or more times in the course of their lives.

More and more, education for jobs is moving from the formal education system to the enterprises, first of all to industry, but also to other branches of the economy such as the public services and agriculture. The process of personality formation is also moving out of the schools, or, more accurately, all the outside institutions are having an increasing impact on the role of the schools in this area.

Coordinated System of Education

The solution for all this is a coordinated educational system. Schools cannot alone master the situation and overcome their crisis. The sources of the crisis are not within schools but outside, in the relation between schools and society. Educational reform should begin with changes in all those outside forces (political, economic, administrative) which determine the functioning of the school system. A coordinated system of education must obtain the cooperation of all the institutions contributing to the formation of human personality: the family, schools, enterprises, cultural institutions, research institutions, and more.

My conclusion is that the schools alone, including higher education, are not in a position to prepare an individual to fully participate in all aspects of the life of society, not even in all aspects of exercising a profession. The gap between life in schools and adult life is widening as more and more institutions take over the tasks of the formal education system. The solution seems to me to be to shorten the school education and build up a system of life-long learning, using the educational resources of all societal institutions and forms of life.

EDUCATION AND EMPLOYMENT IN IRAN

Farhang Mehr

Our seminar discussions have served to reaffirm my conviction that categorizing countries as developed and developing is, at least for educational purposes, both unrealistic and even misleading. It is unrealistic because the historical, cultural, social and economic forces that have conditioned the educational systems in countries in each category differ so basically that clumping them together is not meaningful. It is misleading because such grouping of nations suggests that similar solutions can be found for problems in each group, and this is not true. While agreeing with Frank Sutton that the problems of developing countries are different from those of industrial countries, I wish to emphasize that those problems differ greatly among the developing countries. Let me illustrate with the experience of Iran.

The population of Iran is now 32 million. The annual rate of population growth has been 3%, a high figure which shows that population control measures have not yet been very successful. In 1971, the annual unemployment rate was 2.4%, while seasonal unemployment was 8.5%. From 1966 to 1971, the active population of Iran increased by 1.6% per annum. During the same period, the proportion of the population actively employed declined from 30.2% to 28.7%. This is a low figure compared with the industrial countries, e.g., 44% in West Germany in 1970, 42% in France in 1971, and 51% in Japan in 1970. Contributing to this low figure have been the age structure, the low level of female participation in the work force, the ever-increasing school age population, and the limited opportunities for secondary school leavers and dropouts to find jobs.

Shortage of Professionals, Technicians

Among the gaps and disparities between the education of the youth and jobs in Iran are the following. First, contrary to the situation in many industrial countries, we do not have educated unemployment, at least at the level of university graduates. Our problem is not lack of jobs but a shortage of qualified personnel and skilled manpower to occupy those jobs. To remedy the situation the government has launched a program of importing foreign professionals and skilled technicians, which in turn has given rise to many social and economic complications. One is the language barrier. Doctors imported to work in the rural areas and villages cannot converse with the people. Foreign technicians cannot communicate with workers in the factories.

To illustrate the gravity of the shortage of professionals, there are only 10,800 physicians for the 32 million population of Iran. The uneven geographical distribution of medical personnel aggravates the situation. In north Teheran there is one doctor for 200 to 250 people. However, in some provinces, e.g., Kurdistan, there is only one doctor for each 15,000. The situation is worse regarding dentists and nurses, of whom at most there are 4,600 and 5,200 respectively for the whole country.

The second major shortage area is that of vocational technicians and skilled manpower. Its ratio to the total labor force is 4.6%. The corresponding figure in the United States and Great Britain is 8.6% and in Canada 10%. If the quality of these technicians is taken into account, the figure for Iran would be still lower. Shortages also exist in managerial and high-level administrative personnel. Thus, we still can expand university enrollments and the numbers of universities, provided they are in the shortage fields.

The second point to stress is that educated unemployment exists at the level of secondary school leavers. Again this is not because of a shortage of jobs, but because of an excess expansion of secondary schools. They have produced an army of youths who have a general secondary education but no job skills and whose only ambition is to enter university and to emerge with that magical piece of paper called a university degree. The annual increase in university places being far below the increase in secondary graduates, the chances of such ambitions being realized becomes dimmer and dimmer each year. A study made by the Ministry of Labor shows that the rate of unemployment for secondary school leavers exceeds that of elementary school leavers, but that there is almost full employment of university graduates.

During the last few years the immense shortage of technicians and skilled manpower on the one hand, and the excess of secondary school leavers on the other have prompted the education planners to direct their attention to expanding vocational schools. The number of such schools during the last nine years has increased from 109 to 508, with a student population rise from 15,000 to 134,000. The number of graduates of vocational schools nine years ago was 3,200. Last year it was 13,000. The number of secondary schools during the same period increased by only 10 or 12, although the number of secondary school students went up by 42%. The number of secondary school leavers rose from 35,000 nine years ago to 96,000 last year.

Over 16% of the secondary school graduates were already employed people, working mainly in the public sector where there is considerable underemployment. This is a feature of public employment in the developing countries, and results in these employees having the time to take evening courses and pursue their quest for a diploma. Another difficulty, which fortunately is now changing in Iran, is that in the civil service job positions and salaries are linked to educational qualifications and not to the productivity of the individual. Promotion is usually automatic and if they have a higher qualification they can get a better job and higher salary.

To encourage more young people in Iran to go to the vocational schools, the universities now grant admission to the most able graduates from vocational schools to enter the university. Nine years ago the vocational schools were divided into five categories: industrial, agricultural, commercial, girls' handicrafts, and secretarial. They are now integrated into two types, industrial and agriculture.

Useful Higher Education

My third main point relates to the relevance of higher education. Although we do not have overproduction of university graduates, we have irrelevant curricula, irrelevant, that is, to the needs of the economy and its preparedness to meet the existing demands. A study carried out and published by Pahlavi University four years ago revealed, much to our embarrassment, that a disconcertingly high proportion of our graduates who went to the United

States for additional professional training were reluctant to return to Iran. The figure for Pahlavi University medical graduates was as high as 73%, and for all medical colleges in Iran 61%. We asked ourselves how we could justify devoting major resources to training a small number of highly qualified physicians who for that very reason were likely to be lost to our country. Perhaps our excessive or even exclusive emphasis on academic excellence, on building our universities on the pattern of Western universities, and adopting their curriculum had blinded us to the immediate needs of our society.

This new awareness in due course left its mark on the priorities of Pahlavi and then on other universities. During the last four years our Department of Community Medicine launched a series of studies to determine the manpower needs and policy priorities of health care in Iran. It also started a successful pilot project in rural health training which has already been adopted by several national agencies. The aim of this project is to train young people from rural areas in the basic skills of preventive medicine and public health, and thus fill the existing gap for certain medical services in the remote and scattered rural communities of Iran. A similar project has been initiated by our veterinary school which provides basic training in the tribal areas to young people in the prevention and treatment of diseases of the animals on which their economy and indeed their livelihood so heavily depend.

Our "barefoot doctor project" was prompted by the current and projected serious shortage of doctors and auxiliary medical workers in Iran. On the basis of the rate of growth of population, the rate of production of doctors at our universities, and the anticipated brain drain, we found out that the medical personnel situation will be much worse in the future. At Pahlavi University we found that people with three or four years of training can diagnose and treat 95% of the common diseases. The seven- or eight-year program to train a fully qualified doctor or specialist is not needed. Hence we take, for example, secondary school leavers and give them the shorter training. The main thing important to teach them is to identify what diseases they should not treat but refer to hospitals or medical specialists. For ordinary illnesses they can prescribe a medicine without any harm. A pilot project carried out for two years in several villages showed that in 99% of the cases people with two years of training, some with only one, were correct in their diagnoses and in their prescriptions. On the basis of this experience we are now trying to train auxiliary health workers, taking elementary school leavers and alternating training with practical work in a sort of sandwich course.

Clark Kerr in his excellent presentation about youth referred to preindustrial occupations and industrial occupations. In Iran, as probably in all developing countries, a major problem is the existence of a two-sector economy. On the one hand there are the traditional, rural, agricultural jobs which are mainly manual, ill-paid, and low status. On the other hand, there are the modern sector industrial jobs in the cities which offer prestige, relatively high wages, at least compared with the rural area, security of employment, and more. Education, particularly higher education, is seen as a vehicle to escape from the first type of employment to the second. According to the most recent official statistics yearbook, the urban and rural populations in Iran in 1971 constituted respectively 41% and 59% of the whole population. For 1966 relevant figures were respectively 31% and 69%, showing a relative increase of 10% in the urban population within five years.

Education in Rural Areas

Undoubtedly the security, welfare, and education available in urban areas have drawn the huge force of undereducated, unskilled rural youth flocking into towns in search of a more decent living. In my judgment the gap separating this uprooted, alienated and unprivileged group from the mainstream of the changing economy is as wide and worthy of attention as the gap between the university graduate or secondary graduate and the job market. To remedy the situation, in the last decade we have concentrated on improving living and economic conditions in the rural areas. In the education field we have created special "moving tribal elementary schools," schools on wheels. The moving schools travel with the tribe, but if the tribe stays in one place for two weeks or more, a tent is pitched for the school where the children take their lessons. How often they move it depends on such factors as the climatic conditions, the traditions of the tribe, the size of their herds of goats or sheep, etc. The schools have been very successful. This year, nine graduates of these schools who later completed secondary school, were admitted to Pahlavi University. Other graduates of the moving schools have been sent to England for a year to learn English as an incentive to other students in the schools. Considering that the tribal population in Iran comprises 50,000 people, the schools have an important role to play.

Apart from these special moving tribal elementary schools, the government has increased the number of elementary schools throughout the country, particularly in rural areas, from 13,000 in the year 1965-66 to 22,000 last year. In this period elementary school-going children increased from 2 million to over 3 million, and the number of those successfully completing their elementary school from 230,000 to 452,000. During the last five years the total operating budget for education has been increased more than four times. The share of higher education has remained relatively constant at 12.5%, while the share of the secondary education has been raised from 16% to 25% and that of vocational training from 3% to 7%. Elementary school has been reduced from 49.5% to 30%. The remainder, 19% five years ago and 25.5% last year, has been allocated for combating illiteracy through education corps and part-time vocational schools in rural areas, handicrafts, and so on. The development budget for education during the last five years has been increased 6.6 times. The respective percentages for different levels of education are as follows: elementary from 31.4% to 12.9%; secondary 2.8% to 15.1%; vocational from 21% to 27.9%; and higher education from 37.4% down to 30.5%. Thus, although higher education expanded absolutely, as a percentage of the total education expenditure it has remained constant or even decreased. Priority has generally been given to vocational and secondary schooling.

A notable change, my fourth point, is the fact that the job market has attracted the most highly qualified and able young people to the private sector during the last three to four years. This is because of the high investment made by this sector and the high salaries it offers. This is a very good sign for the economy. Because of the wage differential in Iran between secondary school and university graduates and also between skilled and unskilled manpower, everybody tries to obtain a university degree. The initial salary offered to an instructor or assistant professor at the university is 3.5 times the salary of a secondary school teacher.

To stop this brain drain and bring our graduates home from abroad we raised academic salaries. But now petro-dollar investments in the private sector produce the highest salaries, and the public sector cannot compete. It is a vicious circle, but at least is bringing market forces to bear on the traditional link between higher education qualifications and salaries in the public sector.

In an attempt to achieve greater social justice and equality of opportunity in education, two years ago secondary and higher education (as with elementary education) were made tuition free. Students pay no tuition fees, and university students receive maintenance allowance on condition that they undertake to work in Iran, whether in the private or public sector, for twice the number of years of their university studies. This is to insure that no talented person is prevented from pursuing higher education for financial reasons. But the system remains selective and competitive.

Also, in order to minimize the differences in environmental conditions, and to make equality more meaningful, special quotas have been set for the most able students in secondary schools in cities or villages which have inadequate educational facilities. These students are selected by the Ministry in conjunction with local authorities and are sent to the better secondary schools in the larger cities. All expenses are paid by the government so as to enhance their chances to enter university. Undoubtedly all these changes in the educational system will increase the number of educated people, and the job market will have to be molded and developed in a manner to accommodate the skills and resources for the work force.

To conclude:

(1) There is no or little educated unemployment in Iran among university graduates. Unemployment is more at the secondary school level. This is not so much because of want of jobs but because secondary school graduates have learned little of practical utility, little to match their high job expectations.

(2) There is a pronounced shortage of skilled manpower in certain fields, such as community health, middle-level technology, administration, and teaching.

(3) Higher education curriculum is more oriented to the needs and demands of developed countries than of the developing. The result is a growing body of overqualified professionals vulnerable to the international brain drain market, as well as pro-

fessionals ill-prepared to respond to the social needs of contemporary Iran. We must try to establish a more effective link between the worlds of learning and doing, between higher education and the needs of the economy. These gaps cannot be bridged without a reappraisal of the basic values underlying public expenditures on education and priorities in the whole process of economic development, social justice and the redistribution of resources and opportunities. Because of its high share of national expenditure on education and its potential role as an instrument of national development, higher education cannot and should not be permitted to produce irrelevant or redundant manpower at the expense of the many youth and adults who have no access to any form of education.

(4) The expansion of secondary schools preparing an army of youth with no other skill or ambition than to enter university and obtain a degree should be reappraised. A greater emphasis should be placed on vocational schools and job-oriented education. As preparation, both technical and attitudinal, for entering the job market, attempts at reorientation should begin at an early level of education. If the gap between life and learning is to be bridged, the process should start at the earliest level of schooling.

(5) The search for employment and job selection processes involve culturally conditioned behaviors embedded in past experiences and the dominant values and general attitude toward life and work on the part of the youth. They are increasingly aware of and eager to participate in a rapidly growing consumer economy with its persistent enticements, drummed from the mass media, to buy and enjoy life. The great attraction of stable and permanent employment, job security, and retirement benefits which contrast sharply with the insecurity, lack of cash income and frequent loss of livelihood due to natural disasters in rural Iran, cause the rural youth to move to urban areas with a resultant unemployment as well as hidden underemployment in the rural areas.

(6) In the same way that schools have to undergo changes to accommodate the needs of the economy, the job market will also have to be molded and developed in a manner to accommodate the skills and resources of the work force. This point is particularly important for creating employment opportunities for undereducated youth and adults whose chances of employment may too

easily be destroyed by an emphasis on capital intensive technology or a certificate-dominated employment policy.

(7) The present large wage differential between the salary scale of university graduates and nondegree holders, irrespective of their productivity, should be changed, thereby reducing the present enrollment pressure on the university.

EDUCATION, JOBS AND COMMUNITY SERVICES: WHAT DIRECTIONS FOR NATIONAL POLICIES?

Stephen K. Bailey

During the Second World War, I was for a considerable period of time the only American officer on the island of Cyprus. I developed a considerable interest in that tiny, tragic, conflict-ridden territory. In the late 1950s, when the fragile Cypriot peace dissolved into violence, I found myself in London having lunch with Britain's leading Cyprus specialist. We discussed old times and finally I asked him the ultimate question. What is the solution? He looked at me with that wonderful combination of compassion and disdain that Sons of the Empire reserved in those days for callow American pretenders to the mantle of world leadership and said, "Bailey, old boy, the trouble with you Americans is that you believe that if there is a problem, there is a solution."

The discussions of the past week have reminded me of this important lesson in intellectual maturity. If there is a youth problem in the United States, it may well be that there is no practical solution. Costs; structural rigidities of the labor market; the supervisory, pedagogic, and administrative burdens of carrying out relevant public policies; unacceptable social and economic trade-offs, inflation, the job demands associated with the women's liberation movement; the image of additional unemployed heads of families; increased competition with the elderly for jobs; the reluctance of youth themselves "to be done good to at"; the disruption of recruiting pools for the armed services—these and other possible consequences and constraints may militate against any concerted effort to right observable wrongs.

To complicate matters even further, however, it is not at all clear what wrongs are in fact observable—what the problem of youth really is. Most of you remember the final minutes of the life of Gertrude Stein. "What is the answer?" she asked her lifelong friend, Alice B. Toklas. Alice replied, "There is no answer." "What then," asked Gertrude, with her last breath, "is the question?"

Clark Kerr gave us a brilliant exposition of the youth problem disaggregated into its myriad diversities. He also concocted some heuristic social geometry to illuminate recurring tendencies in human development and in the social expectations of a capitalistic democracy like the United States. The geometry helped to reconstruct some general problems that the disaggregation had already dispersed. But Clark was the first to suggest that the realities behind the geometry were more complicated than the geometry itself. And so they are. Americans no longer look at education as something that takes place between age 6 and 24. The average age of Americans attending community colleges this year is 29, which means that a larger number of citizens above the age of 29 are enrolled in community college courses. Millions of pre-school kids in America are in nursery schools or in day-care centers that have at least some educative components.

Looking at the adolescent and young-adult years of, say, 14 to 24, most American youngsters have a fairly elaborate set of options involving combinations of education, peer-oriented recreation, and job experience. The latter includes such tasks as newspaper delivery, babysitting, short-order cooking at hamburger joints, soda-jerking in ice cream parlors, car-wash wiping, unskilled restaurant services, summer highway jobs, yard work in the neighborhood. In the education field, high schools provide educational opportunities at least through age 16. Postsecondary education is a real option for millions of young people. Within a single decade the number of enrollments in our more than 3,000 colleges and universities has doubled from 5.5 million in 1965 to 11.2 million in 1975. There are at least 12,000 proprietary schools in America serving additional millions of young people. And postsecondary education is available to far more than the rich. Federal public assistance in the form of student aid, loans, and work-study presently help 2.3 million students. And this figure does not include 750,000 students aided through the family assistance program of social security and 1 million students benefiting from veterans' educational allowances. Nor does it include student aid made available through the treasuries of state governments and through the philanthropic and internal resources of private colleges and universities. Large numbers of students in the United States do not pay the "sticker price" for their education. And, except in proprietary schools even the sticker price rarely represents the total cost of a student's education.

It has been argued that we have artificially separated youth and young adults from intergenerational contacts. But this is only partly true, and in many cases where peer contacts have been reinforced at the expense of intergenerational contacts, the experience has been highly liberating. In personal terms, most tyrannizing in human history has been suffered in the intra-family experience. And it would, I think, be a mistake to romanticize apprenticeships. They can smooth the path to adult occupations, but the pains, sometimes cruelties and indignities, of the apprenticeship system did not begin or end with Charles Dickens.

On the general subsistence front, family support, welfare payments, food stamps, intermittent jobs combined with unemployment compensation, work-study, student aid, and an increasing variety of state and federal work relief and job training programs mitigate real hardship for the overwhelming majority of those young people who do not have steady employment. American youth, like all youth, bump along with the normal anxieties of adolescence, but few starve, and most of them have almost endless activity options—wine, music, sex, TV, radio, records, tapes, motor cars and cycles, sports, unsystematic wanderings, movies, education and training, ice cream parlors, magazines, beer parties, surfing, drugs, gangs, communes, the races. In the minds of many young people, serious responsibilities will come soon enough and will last a long time.

So the life of youth in America is only partly structured. For many it is highly libertarian. Why should a bunch of over-the-hill elders want to spoil the fun and the largely free ride? If the Chinese want to fill up young lives with school, work, and patriotic ceremonials, that is their business. If the Germans want to subject large numbers of young people to the strictures and disciplines of apprenticeships, that is up to them. But if a wealthy country like the United States wants to indulge its young people with a smorgasbord of educational opportunities and libertarian recreational options in order to protect the adult labor market, provide equality of occupational opportunity for women and the elderly, and preserve the preconditions of a volunteer armed service, why shouldn't it? Does not youth's very resilience make them the age cohort most able to bear the uncertainties and disutilities of a soft labor market?

In what I have just described, I have not intended to set up a straw man. Eighteen-year olds can vote. If the 18- to 24-year age cohort were massively discontented, they could have organized a political campaign in recent years that would have brought our political leaders to their knees. They have not. In fact, they vote scarcely at all. What, then, is the problem, or in Gertrude Stein's idiom, what are the questions? Surely the issue is not that youth behavior is an affront to the mores of the older generation. In a free society, it is the business of youth to be unsettling to their elders. Otherwise who would maintain the phalanxes of irreverence needed to conquer the bastions of tradition? Not all newness, of course, is liberating, but then neither is all tradition.

There are, it seems to me, five things wrong with settling for the American youth scenario that I have just outlined.

First of all, it is a distorted picture of reality. There are massive injustices in the present system. As Clark Kerr noted, for some older adolescents or young adults—those from upper middle class homes—unemployment may be only 3%. In some urban ghettos the unemployment rate for similar cohorts may be 70 to 80%. Mobility and educational attainment in this nation is still closely linked to family income. Three-quarters of American youth never graduate from college. In addition, the poor cannot afford many of the recreational options that delight the wandering minstrels of Aspen. Vast numbers of young people are locked into locations and situations from which there are no easy escapes and which provide little sense of excitement about either the present or the future because of the lack of purposive activity options and because of the dead-endedness and low-skilled nature of even those jobs that are available. In the higher professions, in spite of recent progress, only a limited number of women and minorities are in the educational pipeline that will ensure a decent chance at the brass rings of higher status in the society. And youth inequalities tend to be perpetuated in the patterns of adult life.

Second, the scenario ignores the extent of psychological disintegration that is manifest in large segments of American youth, affluent as well as poor: drugs, alcohol, violence, drifting, loneliness, manifest alienation. Major crimes of violence are largely perpetrated on society by young people. Disrespect for property in the form of vandalism, shoplifting, and larceny are endemic. Experiments for kicks often reach the demonic and the sadistic. Suicide among young people is increasing. Many sense a fundamental uselessness and purposelessness in their lives as the society communicates to them myriad clues that they are not really essential or wanted. Pertinent to this is the quotation of Thomas Huxley's statement by Dorothy Canfield Fisher in an ACE study of the 1930s on American youth: "The sense of uselessness is the severest shock which the human system can sustain."

Third, the superfluity of youth is having the perverse effect of making our all-volunteer armed services into a potentially dangerous professional military establishment. When the military becomes an occupational model, as it has, and there are slack employment opportunities in the general economy, those young people who voluntarily enlist tend to re-enlist. This cuts away at the notion of short-term national service by civilians whose basic orientation is not military. Carried forward over the years, the military could ultimately be made up of professionals who started as volunteers but who subsequently lose all sense of identity with the civilian polity. A slack economy for youth tends to exacerbate this dangerous tendency.

Fourth, the United States has accumulated a vast horde of unmet social needs: adequate care of the elderly and the handicapped, health services, especially for the poor and for the rural areas, environmental cleanups and beautification, educational services for the deprived and the disadvantaged, welfare and recreational services of all kinds, urban redevelopment, and so on. In 1965 Greenleigh Associates estimated a need for 4,500,000 jobs in the United States, mostly in education and health for persons with a minimum of pre-entry skills, education, and training. It also points out that in 1966, the National Commission on Technology, Automation and Economic Progress reported a need for 5,300,000 subprofessional people working in the fields of health, education, beautification, welfare, urban development and public protection. Probably 400,000 man-years of effort are needed to meet the conservation needs associated with maintaining our cultural life: public libraries, churches and synagogues, museums, performing arts, botanical gardens, zoos, parks, playgrounds. Many of these are in parlous financial condition and have become sorely dilapidated and understaffed.

With all of these unmet social needs it is a kind of madness not to harness the energies of underemployed, underutilized young people—and putting them to work overcoming our patent social deficit.

Fifth, and from my point of view most serious, unemployed and underemployed youth who stay alive solely from family and public handouts begin to lose all sense of social responsibility. Not irrelevant to this is a quotation from Edward Gibbon outside the door of the Aspen seminar building. It reads in part: "When the Athenians finally wanted not to give to society but for society to give to them, when the freedom they wished for most was freedom from responsibility then Athens ceased to be free."

We do not know what prolonged dependence will do to generations of American youth. But the society takes a terrible risk when it decides not to involve its young in activities and decisions that constitute the essence of a responsible democratic polity.

Involvement of Youth

We are by no means the first to worry about such matters. A seven-year study by the American Youth Commission of the American Council on Education from 1935-42 testifies to this. It commissioned more than a score of studies dealing with all aspects of the youth problem. One of these, Howard Bell's *How Youth Tell Their Story,* published in 1938, became a minor sociological classic. It summarized and analyzed over 13,000 personal interviews with young people in the state of Maryland between the ages of 16 and 24. The first act passed in the dramatic 100 days of Roosevelt's New Deal in 1933 authorized the Civilian Conservation Corps which put young unemployed males to work in semi-military camps devoted to conservation and to the renewal of natural resources. Later on, the Federal Emergency Relief Administration and the Works Progress Administration developed job programs for unemployed youth. More significant, in terms of subsequent events, was the developement of two programs under the National Youth Administration, the so-called "school-related jobs" program, and out-of-school jobs for the young.

World War II, of course, absorbed all of our national energies and especially the energies of young people. A predicted postwar depression did not in fact materialize, in part because the G.I. bill (Veterans' Educational Allowance Act) became a cushioning youth policy for the nation. The G.I. bill enormously increased the stock of developed human resources in America and contributed mightily to the technological prowess of the United States in the '50s and '60s. One economist has estimated that the federal investment of billions of dollars in the G.I. bill from 1946 to 1973 yielded a 16-fold return solely in terms of increased federal tax payments.

Reasonable full employment and enormously expanding secondary and higher education enrollments in the '50s and '60s gave most youth a sense of purposive activity and of being needed and valued in the society. Perhaps the high point was reached in the early 1960s when the Peace Corps caught the idealism and imagination of millions of Americans. It had a peak enrollment of 15,000 persons. Even today it enrolls nearly 7,000 persons and has an annual budget of 80 million dollars.

Even so, young Spanish-speaking and black minorities did not share in the euphoria of the early '60s. Unemployment for those living in urban ghettos was five to ten times higher than it was for suburban, ex-urban and rural middle class youth. In consequence, there is a part of President Johnson's Poverty Program (and subsequently a substantial number of other federal programs—alas, often overlapping, often competing with one another), which are directed at the unemployment of the young people from subcultures of poverty. Without going into detail, I mention a few titles: the Job Corps; Neighborhood Youth Corps; College Work-Study Programs (including the so-called Urban Corps which places students in city agencies); VISTA (the acronym for Volunteers in Service to America), which is a kind of domestic Peace Corps and currently enrolls 4,500 volunteers; and a variety of other volunteer programs under the auspices of the federal agency known as ACTION. These other programs include a University Year for ACTION, the Program for Local Service, as well as a series of nonyouth programs, including Foster Grandparents and a retired Service Volunteer Program.

Meanwhile, on the education front there has been the development of career education programs to orient public and students to the world of work—cooperative education programs designed to interlard school and actual work experience in industry. There have also been a series of service learning schemes concocted but not yet implemented. Clark Kerr, Frank Newman, James Coleman, Willard Wirtz, and other luminaries have been ruminating, but nothing has yet really jelled. In April of this year I testified before the Democratic National Platform Committee on the need for a youth policy that would relate education opportunities to jobs to public service. A Universal Youth Service Conference, sponsored by the Eleanor Roosevelt Institute, was held at the Franklin D. Roosevelt Library in Hyde Park April 9-10 of this year. In short, the issue in one or more of its various manifestations is very much alive politically at the moment. There are a spate of congressional bills, at least 15 of them, introduced in the last five or six months. Adam Yarmolinsky has prepared a thoughtful policy paper for Governor Carter on the youth problem issue. The Rand Corporation, under the leadership of Mike Timpane, has prepared a very substantial paper for the office of the assistant secretary of HEW for planning and evaluation entitled *Youth, Policy, and Transition*, which questions the seriousness of the problem, at least as outlined by James Coleman, John Henry Martin and Frank Brown in studies conducted in the early 1970s following on the youth Angst of the late 1960s.

Public Policy

Where in essence are we? What really is needed in the field of public policy? If we take seriously the five problems identified earlier, that is, inequality, psychological disintegration, the professionalization of the armed services, unmet social needs, and the loss of a sense of social responsibility, it seems clear that no one national youth policy can possibly do the trick. I cannot believe that a compulsory, universal, national service program, for example, would be politically or administratively feasible, or even desirable. Even if voluntary service programs are developed, I doubt that we can even come close to the military regimens that were associated with the CCC camps of the 1930s, any more than Germany in 1976 can revive the *Arbeitsdienst* of 1936. There is simply a change in cultural climate. Congressman Young was hooted down at the Hyde Park conference in April when he suggested the desirability of youth being subjected to some of the disciplines associated with the military, even in civilian service roles. The fact is, however, that bits and pieces of public policy are, in John Gardner's phrase, lying all around, needing to be put together. Let me set forth several propositions.

First, part of the problem *is* jobs, and the unequal access to them.

The problem will be acute demographically at least for another ten years, especially among the poor, discriminated against, and unskilled. After ten years, without structural changes in the economy, youth unemployment, I believe, will still be a serious problem for as far ahead as anyone can see, especially in urban centers. Incentives to industry to increase the hiring of young people and various public works and public service opportunities should be provided with government funds in order to open up as many job opportunities to young people as possible. Although Congress may not pass the Hawkins-Humphrey Full Employment bill, I am confident that within a year or so something like it will be enacted which will provide for planning for youth employment and will delegate to local communities and states substantial responsibility for the public service employment elements of such a policy.

Second proposition: Unless we are careful, job programs for the poor alone will divide our young people into minority work reliefers and affluent student-based career climbers. This is why I should like to see a scheme of work-study for kids starting at age 14. In essence, they would be paid a minimum wage for a limited amount of public service each week. But only a third of the minimum wage would be paid in cash, at least until age 16. The other two-thirds would be set aside for future educational entitlements. At age 16, the young person could take the full minimum wage in cash or take one-half in cash and receive an educational entitlement bonus equal to one and a half times the prevailing minimum wage. Then when he or she is ready for postsecondary education, he or she would receive a new form of student aid which could be placed on top of existing student aid provisions, giving him or her a series of postsecondary educational options, as well as a guaranteed access presently denied to many of the poor in this nation.

Third proposition: Low tuition policies at the state level and buttressed student aid packages at the federal level should make postsecondary education for a larger and larger segment of young people not just a holding tank until jobs become available, but a marvelous opportunity to develop personal and interpersonal skills, aesthetic skills, coping skills, hobby skills, public problem-solving skills, voluntary service skills that can enrich all the days of their lives and set a pattern for life-long learning. If jobs for many people are going to be dull and dead-ended, if we are going to have more and more leisure time, free-self time, then one of the great functions of education is to provide people with the opportunity to learn the skills and the appreciations that can make a full and rich life outside of the paid job market.

Fourth, for those not interested in or inclined toward colleges and universities, I would submit that the National Endowments of the Humanities and the Arts and other federal agencies should provide work/learning funds connected with libraries, museums, hospitals, recreation centers and other cultural entities and community educative agencies and instruments. On-the-job released time educational and training programs should be a part of all industrial, professional, governmental, commercial and trade union activity, the cost to be shared by the federal government and by local entities.

Fifth, local community-work councils of the kind suggested by Willard Wirtz, with appropriate counseling staffs and composed of educators, businessmen, labor and/or agricultural leaders, and local governmental and professional leaders, should with federal support become a familiar part of the social landscape of American life.

Sixth, educational institutions should become far more imaginative then they have in the past in developing flexible-time-and-location arrangements for bringing educational opportunities to young people on a dispersed convenient basis, and in adapting curricula to the existential, not just the job needs of all citizens, especially the young.

Seven, military service should have a high educational component, directly and in terms of future occupational preparation, and, except in very special cases, military service for any one enlistee should be limited to three years in order to preserve the reality of civilian service and civilian supremacy.

Eighth, everything I have urged, even if it were implemented tomorrow, would still go only part of the way, because the whole educational and job system in this country cannot be divorced from the health, welfare, and housing policies. To pretend that there are some educational gimmicks that can do away with all of the substructure of misery that is created by the often counterproductive policies of government in such fields as health and welfare is to believe in the stork bringing the baby.

I make one final comment or recommendation. In the final chapter of my little book, *The Purposes of Education,* I make a recommendation which is particularly pertinent at the high school level and for large urban centers, but which also might be a proposition for experimental purposes nationally: moving from a five- to a four-day educational week. The fifth day would be spent by teachers in teacher centers, similar to those that have been experimented with in Britain. The fifth day for students would involve their moving into the community in all kinds of ways, where they can identify with adult peers in a variety of contexts: with jobs, in recreational activities, and in special tutoring (with the able students tutoring the slower students, grandmothers tutoring young people, and so on). This might begin to knit the school and the students back into the larger community from which many of them are becoming alienated—to give students what James Coleman calls an "action-rich", rather than just a "knowledge-rich" curriculum.

These seem to me some of the directions which public policy must take. None of them is easy. Experience to date indicates that all the barriers and rigidities and perversities identified earlier in this paper are likely to endure. But the needs and dangers implicit and explicit in the existing situation are real. The individualism of American life, with all that it promises in the way of vitality and creativity, cannot exist over the long future without a social structure based progressively upon increased social justice and upon an elemental and shared sense of community. Finally, I submit that personal and social integration are ultimately mere mirror images of one another.

YOUTH, EDUCATION, AND EMPLOYMENT

John W. Nason

In preindustrial societies children are largely educated in the context of family and village life, and their activities are expected to contribute in modest but essential ways to the well-being of the group. Upon reaching physiological maturity they are initiated into the privileges and responsibilities of adulthood. Modern industrial societies require longer and more formal training. The years of schooling have lengthened, creating a youth group set apart from the child's world of play and the workday world of its elders, and increasingly alienated from that latter world. Youth, however, is a broad term; and while the seminar participants continued to use it, the focus of the third week of the seminar was the problems of the young adult and the difficult transition between adolescence and full adulthood.

Youth Culture Phenomenon

It was generally agreed that we are dealing with a social phenomenon which can properly be called a youth culture, but members of the seminar disagreed sharply over the nature and significance of the phenomenon. Young people increasingly question the mechanical requirements of industrial production with its division of labor and rigid time demands. They seek to integrate work and leisure into more humane living patterns with greater opportunities for personal development. They are consumer oriented, antiauthoritarian, concerned with issues of social justice, conservation, world peace, and the future of mankind.

So far, so good. The young have always been idealistic. What makes the present generation so different from others? Some participants were inclined to challenge the significance of the change.

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In the United States, for example, college and university students seem once again preoccupied with the prospect after graduation of jobs and security. What evidence is there that youth today are less selfish and materialistic than their predecessors? Others argued vigorously for the unique situation and character of modern youth, pointing to the earlier maturation, both physiological and psychological, the vast change in communications, the increase in critical mass (41 million in the 16-24 age group in the United States in 1976 as against 21 million in 1960), and the bewildering variety of choices resulting from modern technology. Evidence is accumulating, so it was argued, for the existence of a growing and unique youth culture.

How seriously should we view this separation of youth from the rest of society? One group within the seminar stressed the alienation of young people with all its attendant social tensions. Unemployment is highest among the young. In industrial societies the young are still "outsiders." To many of them education seems to be a futile diversion from "real life," with no clear connection between what is learned and the job market. For the young adult the transition between adolescence and full adulthood is fraught with frustrations. The unemployed and underemployed young begin to lose all sense of social responsibility, and the risks to our social fabric are enormous. Other participants, however, took a much less gloomy view. The majority of young people are happy rather than unhappy. One member suggested that a study of the 24-30 age group would reveal that they thought well, on the whole, of their education. Another defended the energy and idealism of youth, arguing that we should create institutional structures and systems which would help young people to solve their own problems.

As might be expected, the differences between the European and North American experiences are not very marked, whereas the conditions in developing and developed countries are quite different. While the generation gap in Europe was described as "a gentle revolution," it was also emphasized that the social role of the young has changed more sharply in Europe than in the United States. In Europe there is less flexibility. In the United States the young have much greater mobility, far more short-term job opportunities while continuing their education, a greater willingness to take jobs their European counterparts might shun, and much wider choice among educational institutions and programs of study.

Youth in Developing Countries

In most developing countries the disparity between aspirations and job opportunities is vast. Everyone expects to become prime minister, as one participant put it. In Western developed countries the expectations are more modest; more education should result in some slight improvement in status. Furthermore, much vocational training in developing countries has proved to be an enormous waste of talent and resources. The expansion of general education would be less expensive and more effective. There were those who thought the same might be said for the Western world. In any event, it was argued that the proposition that each individual should have all the education of which he is capable may be valid for some Western countries, but makes less sense for developing countries. Exceptions to these generalizations must be noted. In countries such as Iran the scarcity of skilled people is a real problem, and consequently, while secondary schools may turn out too many students prepared only to enter higher education there is no overproduction of university graduates. In general, one faces a dilemma. The introduction of modern technology into developing countries can often disrupt life and lead to a kind of sterile antagonism. Let each country develop slowly along its own lines. To this came the retorts that there is no such thing as a national technology and that not to aim at greater equality in living standards is to exacerbate the sterile antagonism to be avoided.

At least some of the causes of the present malaise have revealed themselves in the foregoing description: earlier physiological and psychological maturation, a vastly greater communication system, more affluence (at least in the Western world), growth in size of the age cohort, technological changes affecting life styles. Add greater longevity with its justification for greater investment in training. And then add the breakdown in religious values which have for so long provided the major cohesive factor in all societies. The problem, as one participant put it, is how to adapt young people to an adult society which is close to losing its meaning. These are social and psychological factors for which, save for the last, there is no antidote, and even that cannot be changed merely by act of will.

Impact of Economic Structure

The fundamental cause, according to one contributor to the seminar, is the profound change in the economic structure of modern society. In pre-industrial society there are four "streams of life." First come the professions such as medicine, law, theology to which should be added the craftsmen and the farmers. Second is the aristocracy, now rapidly decreasing under the restrictions of tax laws and social philosophy. The third stream consists of the part-time, hit-or-miss, jack-of-all-trades workers who constitute the secondary labor market and whose status might be characterized as structureless employment. Fourth comes the culture of poverty, composed of the unemployed victims of technological change and minimum wage rates and now supported by private charity or public welfare.

To these four streams must now be added a fifth—the industrial stream which in modern advanced nations comprises a considerable percentage of workers. Entry to this stream requires considerable education and involves a high degree of competition. The industrial stream creates three problems. The first is the excessive rigidity resulting from the nature of industrial production and from the arbitrary restrictions imposed by labor unions on entry into jobs, conditions of work, and impersonal regulations. The second is the difficulty of the sudden transition from schooling to full-time work and again at the end of life from full-time work to complete leisure. The third is the tendency of all industrial societies to create a class of outsiders who are not protected or covered by job security, health protection, and pension plans. In the United States approximately one third of the people are outsiders—chiefly the young, the old, the structureless and the poor.

Remedies

What are the solutions, if any, and in particular what role can education play in resolving the tensions and conflicts generated by the transition from adolescence to full adulthood? One recurrent theme throughout the week's discussion was the need for greater flexibility in educational programs. Whether more general or more vocational—and participants disagreed with one another on this issue—secondary education needs revision. In the United States it seems to be the least satisfactory phase in the total educational experience, and in Europe it leaves much to be desired. But the rigid patterns of postsecondary education must also be loosened and varied with more attention to the educational value of nonformal, noninstitutional learning, more "stopping out" and recurrent education.

On two remedies there was considerable agreement. One is the need for a much closer correlation between education and work experience. The indifferent success of various experiments along this line in different countries should not discourage a frontal attack on the problem of combining the two. The business community needs education on the help they can provide and the advantages they would reap as a result. The educational community needs to free itself from traditional modes of operation and recognize more clearly the learning values in work experience. In Sweden for the past fifteen years all vocational education has had a compulsory work component. In Germany 75% of the 15-18 age group undergoes apprenticeship training (although traditional apprenticeship patterns have become a controversial issue). In the United States the pattern of summer jobs has provided some correlation, but much more needs to be done in the development of cooperative programs.

The second is the need to distinguish between work and jobs. Education, it was argued, cannot ultimately justify itself in terms of employment opportunities. There is no overproduction of educated people if education is viewed in terms of human fulfillment. Satisfaction in life comes out of useful, constructive, socially satisfying work, some of which may be paid for and some may be contributed. Until we recognize that it is work, not jobs, that people should be educated for, we shall not bridge the transition—one participant called it the abyss—between adolescence and adulthood.

There are, of course, other improvements. Changes in institutional structures will ease the transition. Community colleges are a case in point, but so are work corps, social agencies, local organizations and a host of others. Improvement in the coverage of outsiders in our industrial society will also aid the transition. Some social systems appear to be more effective than others. Socialist countries may have more control over the many interlocking factors. The example of China was cited and also of Japan, though at what ultimate social costs remains to be seen.

Public Policies

The seminar ended on a consideration of public policies for dealing with youth and manpower needs. Can there be a single national policy? No. Each country will have to work out its own policies in terms of its cultural setting. Furthermore, within each country there will need to be a congeries of policies, as no one policy will meet all conditions and circumstances. One member presented a nine-point program for the United States, which with suitable modifications might apply to other countries, at least those in the developed world. What we need, among other things, is a map of the many social experiments being made in various countries. Public policy will clearly need to include changes in the traditional educational structures and patterns. It will also need to induce the business, industrial and labor communities to cooperate, whether through apprenticeship or work-study programs or by playing a more explicit role in educational policy determination, as now seems likely in Western Europe. There are economic problems in short-term employment and in apprenticeship. It will take the best thinking of both the business and the academic communities to resolve the difficulties.

IV. SPECIAL SESSION

WOMEN IN THE POWER STRUCTURES: REPORT OF A CONFERENCE

Paola Coppola Pignatelli

Recently I had the opportunity to chair at the Rockefeller Conference Center in Bellagio, Italy, a conference on "Women in the Power Structures." For me and for the majority of the participants it was truly a tremendous experience.

The 21 participants in the conference were all professional women who came from 16 countries: Eastern Europe (2), Western Europe (14), the Mediterranean area (including an Israeli and a representative of the Arab countries, a young Libyan judge), and the United States (3). Although many of the participants had already reached a high professional position in their own fields, as university professors, lawyers, civil servants, economists, or psychoanalysts, the average age was between 38 and 40. Thus, these women still had a long career in front of them, but had already had a number of years of experience in power structures.

The aims of the conference were:

(a) To have the largest number possible of countries represented.

(b) To have the broadest number possible of professions represented.

(c) To have a representation in which the average age of the participants was under 40.

We wanted to have an "open conference" in terms of a variety of professional fields and different national situations, but also with regard to different political trends and ideologies. At the same time, we wanted a "closed conference," so both men and casual observers were excluded. The results exceeded our hopes. This heterogeneity generated intense interest, very strong emotional involvement, and sometimes slight tensions (which, however, are always a very good spice in conferences, if kept under control).

From the beginning we wished to have a conference which would be somehow different from the usual male conferences we were in the habit of attending: distinguished conferences, scientifically based on figures and controlled data, but quite aseptic in terms of personal participation and involvement. We wanted instead to have a very informal conference, where objectivity and abstraction would be replaced by personal experience and everyday problems. We looked for an atmosphere of sincerity and personal involvement based on personal experience and analysis linked to assessments of general social situations.

This method is used in Europe (and, I think, in the United States too) by a number of feminist groups, the consciousness raising groups, which are somehow closer to psychoanalytical groups than to political meetings. From this point of view, the conference was a success. From the first day we felt like sisters and not peers. We realized we were a group of selected and perhaps privileged women who had in common a lot of anger and aggressiveness against male behavior patterns and male values which we had all been obliged to adopt in order to carry out our own jobs.

The conference was organized by GREIS, a private Italian research group on higher education linked to the University of Rome, with a staff of architects, sociologists, educators and planners, which I head. The conference was sponsored by the Ford Foundation, and held at Villa Serbelloni in Bellagio.

The focus of the conference, "Women in the Power Structures," meant for us two contrasting kinds of problems. On the one hand we had been subjected to difficulties, discrimination, and bias in order to be successful; on the other hand we were anxious and afraid of power and we posed the problem of how to use it. These two opposite points were the basis of the conference and came up continuously. As a first step we had to analyze our own personal problems as professional women. These were:

—The need to work "twice as hard or four times harder" than a man in order to reach top positions.

—The humiliation of reacting with a culture which had adopted male behavior patterns as its model *par excellence,* with female behavior patterns considered the negative models.

—The increasing risk of being accused of "losing one's femininity," if one adopted male patterns, and the impossibility of being successful without using them.

—The price paid in order to render one's public and private spheres of life compatible. While men can count on a wide range of institutions, customs and support to help them keep the public and the private spheres of their lives conveniently separate and distinct, professional women who work in the public sphere can expect the daily feeling of guilt from leaving their children's care to others and the special anguish that they will give to their children the "wrong" image of a mother, one bent over a typewriter (or a drawing table in my case).

Power as a Problem

The conference also had to cope with the problem of power. Many questions emerged around this topic: What is power, what does it mean? Are there different kinds of power—psychological, intellectual, physical? Does "power" mean oppression and domination, or does it refer mainly to its use against others? How much power is directed to the acquisition of status? If so, is it worth striving for? Should we distinguish between power and prestige, between power and authority?

And then, how to attain power? What is the price women have to pay for it in terms of sacrifice of values, personal frustration, sense of guilt? And further still, what to do with power once women have reached it? Is there a possibility of alternative uses of power? Is there a possibility of using power in order to change patterns of behavior and values, to introduce, in other words, a new culture and help prepare a new society? These kinds of questions had been put in a questionnaire sent to all the participants as a form of guideline for the papers.

The first answer that emerged from the seminar was very clear. We needed to change the title from "women *in* the power structures" to "women *and* the power structures," since a number of participants refused to belong to power structures and wanted to discuss the problem of staying outside these structures. We elaborated a model of discussion which was the following:

	Women's power	Women's solidarity	Women's culture
Personal experience			
Professional careers			
National situation			

Using this model we realized very quickly that women's power is necessarily connected with women's solidarity and women's culture: women's solidarity and culture being instruments for reaching power; power being a means to propose a different culture and different behavior. Although the backgrounds of the participants varied widely, and their reactions differed, it was impressive that despite the very different condition of women in their countries, the affinities among them were much stronger than their diversities.

Nevertheless, different approaches and assumptions emerged during discussions. Most unexpected was the gap between the pragmatic approach of U.S. participants and the ideological slant given to every argument by the old world participants, including the Eastern European countries, highly industrialized countries (like England or Germany), or newer countries (like Israel or Libya). It was clear that the unquestioned belief in a positive process of development on the part of the American women, which they supported with impressive scientific studies and statistics, diverged importantly from the approach of the Europeans. The latter appeared more skeptical and tended to look on legislation as a means of changing social attitudes. They linked women's emancipation (more and more women enter the labor force) with political and social changes. It was not just a question of a difference in strategy, but a major ideological difference.

Individual Views

Cynthia Epstein, Professor of Sociology at the City University of New York (CUNY) and author of the best seller "Women's Place," discussed whether women actually work harder than male peers. I quote:

> Census data on time spent at work shows that in all professions women average fewer hours than men. This may be a reflection of the inability to work "extra" hours as men do. It may also mean that although they spend fewer hours than men, they spend more concentrated time. As I mentioned before, it is difficult to measure these dimensions, but the fact that so many report working harder certainly means that their own perceived sense of stress and effort is high and probably meaning-

> ful in determining their set of occupational choice, their motivations and their aspirations. It may also mean that although the average hours reported may be less for women than for men, those women who are most successful in a profession must spend the same number as, or more hours than men in order to maintain their position. The women who are responsible for "pulling down" the average may be those who have too many demands on their time.

Her tone is very scientific and not at all partisan. She tests reality and tries to understand the possible reason for the phenomenon. Nevertheless, it is clear that she does not believe in diversity between men and women, and accepts male standards as a way of achieving success including even the habit of "extra hours" of work, which is probably one of the important ways in which women are discriminated against at the present moment.

Reacting to her approach, many of the seminar participants felt that a valid concrete proposal which the seminar might make was that of shortening work hours for all, men and women alike, to no more than six hours a day. The work ethic, itself, which is a heritage from the nineteenth century, was questioned. It was felt that if men also had a shorter working day they would be able to take their share in other vital activities of social life: the care of children and the old and the daily work involved in collective living. At present, by relegating these activities to the shoulders of women, men not only alienate themselves from fundamental human relationships, but they also ensure that they will dominate in the paid sphere of work since women, with their double burden of responsibility, find it difficult or nearly impossible to put in the overtime hours which men often use as a means of advancement.

Amalia Signorelli, Professor of Anthropology at the University of Urbino in Italy, treated the problem quite differently from Cynthia Epstein. She remarked:

> Of course I have been judged in my work and still am, according to male standards. I have been told, "What a pity you are not a man." But I learned very early that if I wanted to be really loved, I had to do all the things expected of a female and do them well before I could do all the things men do. The idea that studying, writing, and research are fabulous prizes which one must earn by

> washing dishes and making beds; the idea that it is somehow indecent for a woman to experience satisfaction from intellectual activity, these deformations are deeply rooted in me, feeding unending guilt feelings, recurrent self-punishment and an odious vulnerability to emotional blackmail. I never behaved like a man, because it was impossible. I have behaved like a woman, who, wanting to make an equal place for herself in the male professional world, does everything possible to make others forget that she is a woman. This means working twice or even four times as hard to have the same recognition, paying much more for a moment of weakness and inefficiency.
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> But there are other prices to be paid as well. If professional activity is the ways and means to jump the bounds of female condition, this brings with it a separate concept of the escape itself, which may be seen not as a transformation of an iniquitous social order, but as the change of one's own personal place within that order. This results in increased competitiveness, making efficiency into a fetish; thus the woman who frees herself from the female condition by means of professional success risks becoming more a sexist than men. She tends to rationalize her new status and the results she has obtained; it does not matter how much effort and pain were involved in attaining the position.

Here the accent is on the terrible ambiguity of the relation between women and power. That is the contradiction between the fact that women refuse the pattern of aggressiveness underlying power while still needing to acquire the instruments which serve to defend and free one.

More or less with the same painful words, Miriam Bernstein, a well-known lawyer in Jerusalem, wrote in her paper:

> I have been told and I have heard it said about other women that they have a "head of a man." I have been told that I am exceptional because I am not like a woman at all. As a girl I was so proud to be considered as one of the boys, that it took me a long time to get resigned to being just a woman and more years to realize

> that I would not care now to be a man even if such a "prize" was offered to me. Now when I hear it said about any woman that she is as capable as a man I get angry (it used to be a famous joke in Israel to say that Golda Meier was the only man in the Cabinet). In fact, in the male-dominated society in which I live, it is very difficult for a woman to get to the top in any profession, because of prejudice, envy and resentment directed against her as a woman. In all the professions except those identified as feminine (such as teaching, nursing, etc.) the correct approach is assumed to be the male approach: objectivity, formalism, abstraction, logic, induction and disinvolvement, instead of subjectivity, realism, concreteness, empathy, involvement.

But apart from these very personal and very deeply felt expressions which were somehow connected with particular national conditions, it was clear in the minds of all the European participants that the problem of professional women and their increasing power could not be separated from the political struggle occurring in each country. Women are underrepresented in the labor force; they are also underrepresented in the political world, and in business: that is, they are underrepresented in every place *where money is used to exercise power.*

Marijke van Hemeldonk, director of the women's workers union in Brussels, put the problem in this way:

> Whether women are a numerical majority (as in society at large) or a numerical minority (as in the labor force) really does not make any difference. It is not the number of women which explains their powerlessness but rather their being "women." The world of work is just a reflection of the world at large. To the question: Why? There are two basically different approaches: an *evolutionary analysis* which sees all this as a result of prejudice and conditioning. The answer and solution then would lie in a number of legal reforms (equal pay, equal opportunities) which could eventually trigger off a 50/50 situation in all power positions between men and women after a certain intermediate period.
>
> A *polemic analysis,* which considers the low proportion

> of women in labor, politics and business as one element in a system which is oppressive in itself. The struggle to add women to the power structures is really a struggle to abolish a society in which, through the mechanism of class, some part of the population is condemned to perform lower tasks; through the mechanism of a market economy this part of the population, though performing vital tasks for the community, is considered as belonging to some lower rank in society. This approach underlies the right to identity of women and it questions the objectivity of the accepted norms. Adler already formulated this thesis in 1924, when he remarked that the term "femininity" has to be interpreted as a function of the social power relationships.

Quite the same approach was clear in the words of Marianne Miko, Professor of Linguistics at the University of Budapest:

> The social status of women cannot be separated from the type of ownership of the means of production. Struggle for the liberation of women is, in fact, part of the mass movement of all the oppressed and exploited. Full equality of women can only be established when exploitation of both sexes is terminated and, in addition, when individually performed household work becomes one of the branches of social production. Consequently the status of women is always characteristic of the phase of development of any society.

Women and Socialism

General agreement was reached on the hypothesis that "the liberation of women is not possible without socialism, but socialism by itself gives no guarantee that women will be liberated." The idea was underlined by Johanna Van der Vaart, a young criminologist in The Hague Ministry of Justice, who reported very lucidly on the different feminist movements in The Netherlands and in particular on the fem-soc movement which adheres to the above hypothesis.

This statement was confirmed by Danuta Markowska, head of the Family Research Center at the Central Board of the Polish

Society for Family Planning, who declared that in her country (Poland) women, on the average, earn less than men of the same age, education, and skill, although the percentage of women in the working labor force is quite high in socialist countries (women represent 51% of all those occupationally active in the Soviet Union, 50.1% in East Germany, 47% in Czechoslovakia, 47% in Bulgaria, and 42% in Poland).

About professional women in Poland, she said that while they rank high in the hierarchy of skill and active participation, they rarely do so in the hierarchies of "official decision-making and representation." An institution headed by a man, with a woman as his deputy (hospital, factory, or school) is a very common phenomenon. Such a woman deputy is usually highly esteemed by the staff and has a great influence on the functioning of the institution. Outside the institution, however, a male director or manager represents the institution and takes decisions which usually have been prepared or inspired by his skillful woman deputy. Many women feel sufficiently satisfied with such a position and do not scramble for posts of formal prestige, so willingly acquired by men. She explains the phenomenon simply: "It seems that such a position agrees with women's traditional experience, shaped through centuries around housekeeping, which involves competence and executive qualities. Nowadays when she occupies the position of a manageress she is ever present, ever watching the functioning of the 'whole.' Participation in the vertical system which undoubtedly carries prestige, often separates one from staff."

The evidence of the paper showed that in Eastern Europe, with a background of several years of socialism, the condition of professional and nonprofessional women is very much the same as in Western Europe and the United States. However, what really seems to be lacking in Western Europe compared with the United States is the collective organization of women and their progressive action.

It was interesting to hear from the German and the Belgian participants that while employment of women was on the decrease in their countries, migrants were called to substitute for women on the labor market, evidence that long-term costs for migrant workers are less than those for women of the country. No women's group, however, protested against this highly discriminatory phenomenon.

The problem of women's solidarity and women's organization was felt strongly by Naima Mohamed Jebril, a 28-year-old judge in Libya, who is divorced and remarried with two children. The great gap in her country, she said, is between legislation (which is very advanced) and behavior. Up until six years ago her mother had covered her face, and 85 percent of men still object to women going out of the home to work. Nevertheless, a small minority of women are very much encouraged by their fathers and husbands to go on working. Naima belongs to this minority and is one of the very few women working in public administration with high-level responsibility. She has been, she said, very much helped by her male colleagues.

When women are very few and do not yet represent a real risk of competition, men seem generally willing to help them. This kind of paternalistic help and encouragement becomes, in developing countries, something like a badge of honor which carries prestige for the wearer.

As the discussion progressed, the basic problem appeared again: whether the women's liberation movement could bring about a political revolution or a cultural revolution. In the first case the distribution of power would be changed (and be divided with women). In the second case values and thus even the basis of acceptance and legitimation of power would change. Oversimplifying, the question was: shall we get power first and then see what to do with it; or should we refuse this power and the male alienation of labor? The majority of women were for the first hypothesis, but with different emphases.

Claude Du Granrut, General Secretary of the Committee of Female Work at the French Ministry of Labor, believes in reforms and not in revolution. As long as society does not include housework in its evaluation of real work and as long as the financial implication of women's professional contributions are not considered, society will not invest significantly in aid programs or in institutionalized educational services. In France, for instance, professional married women contribute ten billion francs each year to social security funds.

French "Fifteen" Statement

Mme. Du Granrut is one of a group of fifteen well-known French women requested by Françoise Giroud to prepare a report aiming at enabling women to take part in decision making in French society. The report seems concerned to avoid disagreeing with men. It ends: "In the battle for the new society men and women should not lose contacts or weaken their ties. Both should adapt to living together as dissimilar equals."

But the statement of the French "fifteen" did not obtain agreement in the seminar. Many women thought that no collaboration is possible with men because of the conflict between two contrasting interests. The traditional submission of women seems to be connected with the attempt by men to assure for themselves complete power over the reproduction of the working force. Women as the primary instrument for the production of the working force have been oppressed and exploited. Therefore the exploitation of women by men is different from the exploitation of human beings by other human beings. While it is possible to appropriate the human labor force totally, reducing the human being to an instrument, it is not possible to alienate a woman from herself. The hypothesis was settled this way: *We are strong not because we are like man, but because we are profoundly different.* Therefore we may use all those qualities and specific abilities, which we have managed to preserve either in spite of or because of our submission. A similar assumption was expressed in different words by the French psychoanalyst Helene Teboul-Wiart. Large families do not exist any more; men and women are left alone. Having no time for emotional relationships, nevertheless man's only security is the relationship with woman. The fixation he has had for his mother is transferred to his wife. Men are no longer able to be creative. Therefore, today's paradox is: although men do not acknowledge it, only women can get us out of the impasse in which we are because, today, only women have the capacity to be different.

The paper by Hilary Rose and Uta Gerhardt, two sociologists teaching at Bedford College in London, dealt with the recuperation of typical female capacities, and in particular reproduction. I quote: "Liberation should not mean the loss of traditional labor and the entry into male labor, but rather the transformation of both in nonalienated forms. A woman who enters the male world can only become at best an honorary man."

Reproduction has to be understood as a special form of production which occurs in an alienated as well as in an essential form. Feminists up to now have denounced reproduction as the labor of the slave's slave, but have only looked at its alienated forms. Reproduction, instead, is also the pleasure of giving birth and the delight of producing life. Reproduction carries the potentiality of self-realization in people as products of nonalienated production in a loving and supportive relationship.

The first step toward such a revolution seems to be the awareness that production is not confined to industrial work, but also includes *personal experience*. I believe that in the struggle for women's liberation the seminar held in Bellagio (perhaps the first of its kind among international women's seminars) represents a trend of some importance: not just because different strategies, assumptions and ideologies came into contact, but because *personal experience* was the catalyst, the real protagonist of the whole performance.